

**ASBESTOS & LEAD-BASED PAINT SURVEY**

**FIRE ALARM BUILDING  
333 PRESTON AVENUE  
HOUSTON, HARRIS COUNTY, TEXAS**

**Prepared For:**

**MR. GABRIEL MUSSIO  
CITY OF HOUSTON  
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**Prepared By:**

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Signature

*For* **JENNIFER BOONE  
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Signature

**SEPTEMBER 29, 2005**



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**ENVIRONMENTAL CONSULTING SERVICES, INC.**

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September 29, 2005

Mr. Gabriel Mussio  
City of Houston  
900 Bagby 2<sup>nd</sup> Floor  
Houston, Texas 77002

**Re: Asbestos and Lead-Based Paint Survey  
Fire Alarm Building  
333 Preston, Houston, Texas  
ECS Project Number: 50825130  
City of Houston Contact Number: 53564**

Dear Mr. Mussio:

Environmental Consulting Services, Inc. (ECS) is pleased to present the results of the asbestos and lead-based paint survey conducted at the above referenced facility.

This report includes the results of our findings from visual reconnaissance, sampling and laboratory analysis. An assessment of the information was made to arrive at the conclusions stated and the recommendations presented.

We appreciate the opportunity to be of service to you and look forward to working on future assignments. Should you have any questions concerning this report or if we can assist you with any other matter, please feel free to contact us. ECS staffs are available for your assistance around the clock.

Sincerely,  
**Environmental Consulting Services, Inc. (ECS)**

Lina Jazi  
President

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## 1. EXECUTIVE SUMMARY

On September 12 and 13, 2005, Environmental Consulting Services, Inc. (ECS) conducted an asbestos and lead based paint survey at the Fire Alarm Building located at 333 Preston in Houston, Texas, under professional services Contract No.: 53564. The scope of services was to inspect the facility for the presence of asbestos and lead-based-paint materials in accordance with the AHERA and HUD guidelines sampling protocols respectively. In addition, a previous asbestos survey conducted May 30, 1989 by Technology Serving People, Inc., was reviewed by ECS. The results from this survey are attached to this report in Appendix G.

### 1.1. Asbestos:

The asbestos survey was conducted by Mr. Daniel Srubar an EPA-accredited/DSHS-Licensed Asbestos Inspector with ECS. Twenty-Six (26) homogenous areas [ninety-seven (97) material samples] were identified which consisted of vinyl floor tile, baseboard and mastic, sheetrock walls and ceilings, suspended ceiling tiles, lathe and plaster ceiling, pipe elbows, white caulking, carpet mastic, roll flooring, roof flashing and black mastic, roll roofing, black moisture barrier, and wall expansion joint putty. Based on visual surveillance, the following materials were identified as suspect Asbestos-Containing Materials (ACM):

- **12" Vinyl Floor Tile: Approximately six hundred seventy two (672) square feet gray black vinyl floor tile over white floor tile with black mastic were located in rooms 101, 102 and 103 within the facility that appeared to be in good condition at the time of our site visit.**
- **12" Square Vinyl Floor Tile: Approximately one thousand six hundred (1,600) square feet of 12" square white vinyl floor tile over black mastic material was located on the first floor throughout building that appeared to be in good condition at the time of our site visit.**
- **Brown Baseboard with Yellow Mastic: Approximately four hundred (400) linear feet were located on the first floor that appeared to be in good condition at the time of our site visit.**
- **Black Baseboard with Yellow Mastic: Approximately one thousand six hundred (1,600) linear feet were located in rooms 101, 102 and 103 that appeared to be in good condition at the time of our site visit.**
- **Sheetrock, Joint Compound, and Texture Walls and Ceilings: Approximately three thousand five hundred fifty (3,550) square feet were located on the north half of the first floor that appeared to be in good condition at the time of our visit.**
- **Suspended Ceiling Tiles with White-Swirl: Approximately one thousand one hundred fifty (1,150) square feet were located throughout the first floor and in the 911 room and kitchen on the second floor that appeared to be in good condition at the time of our visit.**

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- Lathe and White Plaster Ceiling: Approximately one hundred fifty (150) square feet were located in the men's and women's restroom on the first floor that appeared to be in good condition at the time of our visit.
  - **Pipe Elbows and Ts with White Coating: Approximately one hundred ten (110) linear feet were located above the suspended ceiling throughout the first floor that appeared to be in good condition at the time of our visit.**
  - White Caulking: Approximately five (5) linear feet were located in the north hall above the drop ceiling tile that appeared to be in good condition at the time of our visit.
  - White Troweled-on Plaster: Approximately one hundred (100) square feet were located above the men's and women's restroom on the first floor that appeared to be in good condition at the time of our visit.
  - Yellow Carpet Mastic: Approximately six thousand three hundred ten (6,310) square feet were located on the second floor except in the kitchen and radio room that appeared to be in good condition at the time of our visit.
  - Brown Baseboards with Yellow and Brown Mastic: Approximately one thousand five hundred (1,500) linear feet were located on the second floor in all rooms except the restroom that appeared to be in good condition at the time of our visit.
  - **Gray/White/Black Roll Flooring: Approximately five hundred (500) square feet were located over white 12" x 12" floor tile and black mastic in the Radio Room on the second floor that appeared to be in good condition at the time of our visit.**
  - **Off White 12" Square Vinyl Floor Tile and Black Mastic: Approximately two hundred fifty (250) square feet were located in the east and west stairwells that appeared to be in good condition at the time of our visit.**
  - **Off White Sheetrock and Joint Compound Walls: Approximately eight thousand (8,000) square feet were located throughout the second floor except the fire alarm room that appeared to be in good condition at the time of our visit.**
  - Suspended Ceilings / White Worm Hole: Approximately six thousand seven hundred (6,700) square feet were located throughout the second floor except in the kitchen bathroom that appeared to be in good condition at the time of our visit.
  - **White TSI Elbows T's: Approximately sixty five (65) linear feet were located above the suspended ceiling tile on the second floor that appeared to be in good condition at the time of our visit.**
  - White Plaster Ceilings: Approximately one hundred twenty (120) square feet were located in the men's restroom on the second floor that appeared to be in good condition at the time of our visit.
  - Wall Sound Proofing Panels / White Small Holes: Approximately thirty (30) square feet were located in the alarm room on the second floor that appeared to be in good condition at the time of our visit.
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- Roof Flashing and Black Mastic: Approximately sixty (60) linear feet were located on the roof of the building that appeared to be in good condition at the time of our visit.
  - Roll Roofing / White / Black / White: Approximately seven thousand three hundred (7,300) square feet were located on the roof of the building that appeared to be in good condition at the time of our visit.
  - **Gray Water Proofing with Black Mastic: Approximately seven hundred fifty (750) square feet were located on the exterior walls by the planters that appeared to be in good condition at the time of our visit.**
  - Wall Expansion Joint Putty / Exterior: Approximately three hundred (300) linear feet were located between exterior walls that appeared to be in good condition at the time of our visit.
  - Fiberglass Batting / White / Yellow: Approximately two thousand two hundred (2,200) square feet were located in the mechanical room, boiler room and pump room area that appeared to be in good condition at the time of our visit.
  - **Elbow Insulation: Approximately two hundred fifty (250) linear feet were located in the mechanical room, boiler room and pump room area on the first floor that appeared to be in good condition at the time of our visit.**
  - Ceiling Blanket / Yellow: Approximately one thousand seven hundred (1,700) square feet in the mechanical room, boiler room and pump room area that appeared to be in good condition at the time of our visit.

A total of ninety-seven (97) material samples of suspect Asbestos-Containing Materials (ACM) were collected and analyzed. Analytical results indicated that asbestos fibers were detected in the samples collected and analyzed from the Fire Alarm Building (City of Houston Hazard Category C-3).

The following additional homogenous areas were identified as asbestos containing in the asbestos survey performed May 30, 1989 by Technology Serving People, Inc. that were not re-sampled or confirmed by ECS:

- **Stack, Exhaust Pipe, Water Line and Hanger Insulation: Approximately five hundred fifty (550) linear feet of stack insulation is located throughout the Mechanical and Generator Room on the first floor and extending through the Roof of the building.**

**NOTE: Additional asbestos containing pipe insulation may be located in pipe chases that were inaccessible at the time of this survey.**

## Recommendations

Asbestos materials were detected in the samples collected and analyzed from the Fire Alarm Building. Asbestos is present. No action necessary unless renovation, remodeling, or demolition is planned (City of Houston Hazard Category C-3).

If during demolition and/or renovation activities, and prior to disposal, any unforeseen building materials that were not sampled for asbestos are discovered:

1. The suspect material should be analyzed for asbestos content and disposed of properly based on the analytical test results; or,
2. The construction material may be presumed asbestos-containing material, and disposed of following all applicable regulations.
3. It should be assumed that additional amounts of thermal systems insulation are located in all pipe chases that were inaccessible at the time of this survey.

### 1.2. Lead

The lead-based paint survey was conducted by Ms. Lina Jazi, an EPA/TDH-certified Lead Risk Assessor with ECS. Nine (9) homogenous areas were identified. A total of nine (9) samples of suspect Lead-Based-Paint (LBP) materials were collected and analyzed. Sample analysis results indicated the following:

1. Analytical results of the red paint located on the floor of Room 105 indicated lead concentrations of 0.022% by weight. These materials appeared to be in damaged condition at the time of our facility visit. Approximately sixty four (64) square feet of this paint exist. Allowable lead levels (City of Houston Hazard Category A).
2. Analytical results of the white / red door frame paint located on the interior door frame in the hall outside east stairwell indicated lead concentrations of 0.136% by weight. These materials appeared to be in good condition at the time of our facility visit. Approximately seven hundred (700) square feet of this paint exist on metal doorways throughout the building. Abatement of this material should be addressed prior to any renovation/demolition activities. OSHA regulations apply to workers or the public (City of Houston Hazard Category C-2).
3. Analytical results of the white paint located on the first floor interior wall paint indicated lead concentrations of below reportable limits. These materials appeared to be in good

condition at the time of our facility visit. Approximately six thousand five hundred (6,500) square feet of this paint exist. Allowable lead levels (City of Houston Hazard Category A).

4. **Analytical results of the gray paint located on the floor of the mechanical room located on the first floor indicated lead concentrations of 3.491% by weight. These materials appeared to be in damaged condition at the time of our facility visit. Approximately one thousand one hundred (1,100) square feet of this paint exist in the mechanical room areas. Health hazard, as defined by applicable federal, state, and local regulations. Abatement should be a top priority. (City of Houston Category C-1).**
5. Analytical results of the green paint on the HVAC unit, duct work, and various pieces of equipment in the mechanical rooms located on the first floor indicated lead concentrations of 0.108% by weight. These materials appeared to be in good condition at the time of our facility visit. Approximately three thousand six hundred (3,600) square feet of this paint exist. Abatement of this material should be addressed prior to any renovation/demolition activities. OSHA regulations apply to workers or the public (City of Houston Hazard Category C-2).
6. Analytical results of the yellow paint on piping located north mechanical room indicated lead concentrations of 0.013% by weight. These materials appeared to be in good condition at the time of our facility visit. Approximately six hundred (600) square feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).
7. Analytical results of the blue wall paint located on the first floor north wall hall indicated lead concentrations below reportable limits. These materials appeared to be in good condition at the time of our facility visit. Approximately sixty four (64) linear feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).
8. Analytical results of the medium gray located on the interior walls of the boiler room indicated lead concentrations below reportable limit. These materials appeared to be in good condition at the time of our facility visit. Approximately nine hundred sixty (960) square feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).
9. Analytical results of the yellow paint wall patch located on the north wall of room 209 indicated lead concentrations below reportable limit. These materials appeared to be in good condition at the time of our facility visit. Approximately eighty (80) square feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).

10. Blue and yellow paints on pipe insulation throughout the mechanical rooms are assumed to be lead containing. Approximately three hundred (300) linear feet of this material appeared to be in good condition at the time of our facility visit. Health hazard, as defined by applicable federal, state, and local regulations. Abatement should be a top priority. (City of Houston Category C-1).

### **Recommendations**

1. Prior to disturbance, all paints indicating lead concentrations below 0.06% by weight should be addressed for workers protection following the applicable OSHA regulations (i.e. 29 CFR 1926.62).
2. All paints indicated as lead containing should be considered a health hazard and should be addressed accordingly under applicable state and federal laws.
3. Any painted areas that are homogenous with the above sampled areas identified as lead containing, shall also be considered as lead-containing and should be maintained or removed by qualified personnel.
4. Paint materials indicating lead concentrations of greater than 0.5% by weight pose a health hazard, as defined by applicable federal, state and city regulations. Abatement should be a top priority (City of Houston Hazard Category C-1).
5. In the event that any work procedure (i.e. renovations, demolitions, or abatement) are to be conducted, workers should abide by the federal OSHA regulations (i.e. 29 CFR 1926.62). Work should be conducted in accordance with the U.S. Department of Housing and Urban Development (HUD), *Lead-Based Paint Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing*. All abatement should be done in accordance with all applicable building and fire codes.
6. The appropriate abatement methods are 1) to replace the painted materials; 2) encapsulate with non-lead-based paint; or 3) paint removal. If re-coating is selected, surface preparation should be limited to liquid wipe and not sanding. If abatement does not break or disturb lead-based painted surfaces, containment measures should be used only as needed to protect surfaces and furniture from damage.
7. The lead-based paint materials should be disposed of in accordance with State and Federal Regulations. The Texas Commission On Environmental Quality (TCEQ) requires profiling the waste and applying with the State for a waste code number. To profile the waste, a sample of the waste is submitted to a laboratory and tested for

reactivity, corrosivity, ignitability, and toxicity. Toxicity is determined by performing a TCLP lead analysis. The analytical results along with a TCEQ-0757 form is submitted to the TCEQ to receive a one-time shipment waste code. Upon issuance of a waste code from the TCEQ, the analytical results and the waste code can be submitted to a disposal facility for acceptance. Lead based paint materials are not considered hazardous waste for disposal if the concentration is less than 5 mg/L by TCLP analysis.

## 2. COMPREHENSIVE ASBESTOS SURVEY

Environmental Consulting Services, Inc. (ECS) has completed a comprehensive asbestos survey at the Fire Alarm Building located at 333 Preston in Houston, Texas and referred to as the “facility”. In addition, a previous asbestos survey conducted May 30, 1989 by Technology Serving People, Inc., was reviewed by ECS. The results from this survey are attached to this report in Appendix G.

### 2.1. Scope of Services

This survey was performed to determine the presence, location, and condition of Asbestos-Containing Materials (ACM) at the referenced facility. Mr. Daniel Srubar an EPA-accredited/DSHS-Licensed Asbestos Inspector with ECS performed the facility inspection on September 12 and 13, 2005.

The inspection consisted of the following:

- Sampling of suspect Asbestos-Containing Materials (ACMs).
- Quantifying and qualifying ACM.
- Locating ACM samples on computer generated maps.
- Preparing an inspection report.

### 2.2. Facility Description

The Fire Alarm Building is a two story concrete wall construction building built on a concrete slab. Interior walls are wood frame. The roof is a flat, concrete built up roof with tar and gravel. Based on visual surveillance, the following materials were identified as suspect Asbestos-Containing Materials (ACM):

- **12” Vinyl Floor Tile:** Approximately six hundred seventy two (672) square feet gray black vinyl floor tile over white floor tile with black mastic were located in rooms 101, 102 and 103 within the facility that appeared to be in good condition at the time of our site visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
- **12” Square Vinyl Floor Tile:** Approximately one thousand six hundred (1,600) square feet of 12” square white vinyl floor tile over black mastic material was located on the first floor throughout building that appeared to be in good condition at the time of our site visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).



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- Brown Baseboard with Yellow Mastic: Approximately four hundred (400) linear feet were located on the first floor that appeared to be in good condition at the time of our site visit. No asbestos found (City of Houston Category A).
  - Black Baseboard with Yellow Mastic: Approximately one thousand six hundred (1,600) linear feet were located in rooms 101, 102 and 103 that appeared to be in good condition at the time of our site visit. No asbestos found (City of Houston Category A).
  - **Sheetrock, Joint Compound, and Texture Walls and Ceilings: Approximately three thousand five hundred fifty (3,550) square feet were located on the north half of the first floor that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).**
  - Suspended Ceiling Tiles with White-Swirl: Approximately one thousand one hundred fifty (1,150) square feet were located throughout the first floor and in the 911 room and kitchen on the second floor that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - Lathe and White Plaster Ceiling: Approximately one hundred fifty (150) square feet were located in the men's and women's restroom on the first floor that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - **Pipe Elbows and Ts with White Coating: Approximately one hundred ten (110) linear feet were located above the suspended ceiling throughout the first floor that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).**
  - White Caulking: Approximately five (5) linear feet were located in the north hall above the drop ceiling tile that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - White Troweled-on Plaster: Approximately one hundred (100) square feet were located above the men's and women's restroom on the first floor that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - Yellow Carpet Mastic: Approximately six thousand three hundred ten (6,310) square feet were located on the second floor except in the kitchen and radio room that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - Brown Baseboards with Yellow and Brown Mastic: Approximately one thousand five hundred (1,500) linear feet were located on the second floor in all rooms except the restroom that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - **Gray/White/Black Roll Flooring: Approximately five hundred (500) square feet were located over white 12" x 12" floor tile and black mastic in the Radio Room on**
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**the second floor that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).**

- **Off White 12" Square Vinyl Floor Tile and Black Mastic:** Approximately two hundred fifty (250) square feet were located in the east and west stairwells that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
- **Off White Sheetrock and Joint Compound Walls:** Approximately eight thousand (8,000) square feet were located throughout the second floor except the fire alarm room that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
- **Suspended Ceilings / White Worm Hole:** Approximately six thousand seven hundred (6,700) square feet were located throughout the second floor except in the kitchen bathroom that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
- **White TSI Elbows T's:** Approximately sixty five (65) linear feet were located above the suspended ceiling tile on the second floor that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
- **White Plaster Ceilings:** Approximately one hundred twenty (120) square feet were located in the men's restroom on the second floor that appeared to be in good condition at the time of our visit.
- **Wall Sound Proofing Panels / White Small Holes:** Approximately thirty (30) square feet were located in the alarm room on the second floor that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
- **Roof Flashing and Black Mastic:** Approximately sixty (60) linear feet were located on the roof of the building that appeared to be in good condition at the time of our visit.
- **Roll Roofing / White / Black / White:** Approximately seven thousand three hundred (7,300) square feet were located on the roof of the building that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
- **Gray Water Proofing with Black Mastic:** Approximately seven hundred fifty (750) square feet were located on the exterior walls by the planters that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
- **Wall Expansion Joint Putty / Exterior:** Approximately three hundred (300) linear feet were located between exterior walls that appeared to be in good condition at the time of our visit.

- Fiberglass Batting / White / Yellow: Approximately two thousand two hundred (2,200) square feet were located in the mechanical room, boiler room and pump room area that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
- **Elbow Insulation: Approximately two hundred fifty (250) linear feet were located in the mechanical room, boiler room and pump room area on the first floor that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).**
- Ceiling Blanket / Yellow: Approximately one thousand seven hundred (1,700) square feet in the mechanical room, boiler room and pump room area that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).

The following additional homogenous areas were identified as asbestos containing in the asbestos survey performed May 30, 1989 by Technology Serving People, Inc. that were not re-sampled or confirmed by ECS:

- **Stack, Exhaust Pipe, and Hanger Insulation: Approximately four hundred fifty (450) linear feet of stack insulation was located throughout the Mechanical and Generator Room on the first floor and extended through the roof of the building. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).**

## **2.3. Sampling Techniques and Laboratory Methods**

This section details the sampling and laboratory methods used in the comprehensive asbestos survey to quantify and assess the condition of the confirmed ACM. A total of ninety-seven (97) material samples of suspect Asbestos-Containing Materials (ACM) were collected and analyzed. Analytical results indicated that asbestos fibers were detected in the samples collected and analyzed from the Fire Alarm Building (City of Houston Hazard Category C-3).

### **2.3.1 Survey Methods**

This section addresses the criteria necessary for identifying, evaluating and assessing suspect Asbestos-Containing Materials (ACMs).

#### **a. Homogeneous Areas**

Prior to collecting bulk samples of suspect ACM, distinct homogeneous sampling areas and specific sampling sites were defined based on building construction dates. A homogeneous

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sample area can be defined as a material that is similar in appearance, color, and generally having the same episode of installation as surrounding "like" material. Attempts were made in all cases to obtain representative samples of like materials, as this is the most cost-effective method for determination of ACM. It should be assumed by the building owner, contractor, and the abatement contractors that the composition of like materials in a single homogeneous area is the same. Homogeneous areas sampled as part of this survey include materials which have been identified by ECS as ACM and have been classified as friable (material containing more than one-percent asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure) or non-friable (material containing more than one-percent asbestos that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure). Friable materials are more likely to become airborne, thereby increasing the potential for health hazards.

#### **b. Hazard Assessment**

According to AHERA (December 30, 1986), verified friable or assumed ACM uncovered in an inspection or reinspection of a facility shall be accessed in view of past, present, or future likelihood of disturbance and may include the following:

1. Location of material present.
2. Condition of material: type of damage, severity of damage, and the extent or spread of damage.
3. Accessibility of the materials.
4. Potential for disturbance of the material.
5. Known or suspected causes of damage (i.e., air erosion, vandalism, service or repair, vibration, and water).
6. Preventive measures which might eliminate the likelihood of undamaged ACM from becoming significantly damaged.
7. Actions to be taken to protect human health.

The above hazard assessment factors will be discussed according to classifications of verified ACM. The ACM is usually examined and prioritized according to hazard categories based on condition, location, potential for damage and potential for fiber release. The asbestos hazard categories as defined by the City of Houston are presented in Table 1 as follows:

| <b>Table 1: HAZARD CATEGORY AND REPONSE ACTION</b> |  |
|--|--|
| <b>Hazard Category</b>                             | <b>Response Action</b>   |
| C-1: Asbestos Present                              | Serious health hazard, as defined by EPA, abatement should be a top priority |
| C-2: Asbestos Present                              | Health hazard, as defined by EPA, abatement should be planned                |
| C-3: Asbestos Present                              | No action necessary unless renovation, remodeling, or demolition is planned  |
| B-1: Asbestos Present                              | Contains 1% asbestos, or less, not regulated by TDH                          |
| B-2: Asbestos Present                              | Adequately enclosed  |

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| <b>Table 1: HAZARD CATEGORY AND RESPONSE ACTION</b> |  |
|---|--|
| <b>Hazard Category</b>                              | <b>Response Action</b>   |
| B-3: Asbestos Present                               | Adequately encapsulated  |
| A: No asbestos found                                | N/A  |
| A-1: Asbestos Abated                                | Once identified asbestos containing materials have been abated |

### **c. Field Methods**

All accessible areas of the facility were inspected for the presence of suspect ACM. As the suspect ACMs were located and identified, the suspect materials were kept wet while bulk samples were obtained and placed into individual containers for transportation to EMC Labs, Inc. in Phoenix, Arizona.

All samples were identified by a numbered label. The numbers directly correspond with the numbers listed in the Chain-of-Custody and the Laboratory Test Results in Appendix B. Sample locations for all areas tested and analyzed are presented in Appendix A, Figures and Photographs. Analytical results are presented in Table 2.

#### **2.3.2 Laboratory Methods**

A total of ninety-seven (97) material bulk samples of suspect ACM were collected from the facility. All material samples were analyzed using the Polarized Light Microscopy (PLM) methods with dispersion-staining techniques according to US EPA Interim Method EPA 600/M4-82-020. This type of analysis requires the microscopist to take a portion of the bulk sample and treat it with a special light-refractive oil emulsion stain. The prepared slide is then subjected to a variety of tests while being viewed under varying polarization of light.

Each type of asbestos displays unique characteristics when subjected to these tests. Percentages of the identified types of asbestos are determined by visual estimation. Even though this is an estimation, any material that contains over one percent ( $> 1\%$ ) of any type of asbestos using the PLM Method is considered an ACM and must be handled according to OSHA, EPA, and State regulations if disturbed.

EMC Labs, Inc. participates in the EPA Quality Assurance Program for Polarized Light Microscopy and is accredited by the EPA/NIST. This program helps ensure accurate repeatable results on the part of the analyst.

### 2.3.3 Asbestos-Containing Material (ACM) Verification and Assessment

Analytical results indicated that asbestos fibers were detected for the samples collected and analyzed from the Fire Alarm Building at 333 Preston.

### 2.3.4 Hazard Assessment Results

The exact hazard ratings as defined by the City of Houston Hazard Category and Response Action (Table 1) are referenced in Table 2.

| <b>TABLE 2: SUSPECT ACM ANALYTICAL RESULTS</b> |   |   |              |                 |                     |  |
|--|---|---|--------------|-----------------|---------------------|--|
| <b>Homogenous Area No.</b>                     | <b>Material</b>   | <b>Location</b>   | <b>Type*</b> | <b>Damaged*</b> | <b>Hazard Risk*</b> | <b>Asbestos Content (ND = None Detected)</b> |
| HA-A   | White 12" x 12" Floor Tile under the Gray Floor Tile      | Rooms 101, 102 & 103  | Non-Friable  | No              | C-3                 | 3% Chrysotile                                |
| HA-B   | 12" x 12" White Floor Tile                                | Hallway Outside Room 101 & 105 / Outside Elevator                   | Non-Friable  | No              | C-3                 | 3% Chrysotile                                |
| HA-C   | Brown Baseboard w/ Yellow Mastic                          | Hallway Outside Room 100 / In Rooms North of Room 109 & by Elevator | Non-Friable  | No              | A                   | ND   |
| HA-D   | Black Baseboard w/ Yellow Mastic                          | Rooms 101, 102 & 103  | Non-Friable  | No              | A                   | ND   |
| HA-E   | Sheetrock, Joint Compound and Texture on Walls & Ceilings | Throughout 1 <sup>st</sup> Floor                                    | Friable      | No              | C-3                 | 3% Chrysotile                                |
|  | Joint Compound  |   |              |                 | C-3                 | 2.4% Point Count Method                      |
|  | Texture   |   |              |                 | C-3                 | 1.8% Point Count Method                      |
| HA-F   | Suspended Ceiling Tiles / White-Swirl                     | Throughout 1 <sup>st</sup> Floor Including 911 Room & Kitchen       | Friable      | No              | A                   | ND   |
| HA-G   | Lathe & Plaster Ceiling                                   | Men's & Women's Restroom / 1 <sup>st</sup> Floor                    | Friable      | No              | A                   | ND   |
| HA-H   | White Pipe Elbows 90's & T's                              | Above Men's & Women's Restroom / 1 <sup>st</sup> Floor              | Friable      | No              | C-3                 | 10% Chrysotile                               |

**TABLE 2: SUSPECT ACM ANALYTICAL RESULTS**

| <b>Homogenous Area No.</b> | <b>Material</b>                                   | <b>Location</b>   | <b>Type*</b> | <b>Damaged*</b> | <b>Hazard Risk*</b> | <b>Asbestos Content (ND = None Detected)</b> |
|----------------------------|---|---|--------------|-----------------|---------------------|--|
| HA-I                       | White Caulk                                       | North End of 1 <sup>st</sup> Floor Hallway by Restrooms Above Suspended Ceiling | Non-Friable  | No              | A                   | ND   |
| HA-J                       | Troweld on Plaster / White                        | 1 <sup>st</sup> Floor Above Men's & Women's Restroom                            | Non-Friable  | No              | A                   | ND   |
| HA-K                       | Yellow Carpet Mastic                              | 2 <sup>nd</sup> Floor except Kitchen & Radio Room                               | Non-Friable  | No              | A                   | ND   |
| HA-L                       | Brown Baseboard Yellow Mastic                     | 2 <sup>nd</sup> Floor all Rooms Except Restroom                                 | Non-Friable  | No              | A                   | ND   |
| HA-M                       | Roll Flooring (Gray, White, Black)                | 2 <sup>nd</sup> Floor Radio Room Southwest Corner of Building                   | Non-Friable  | No              | C-3                 | 3% Chrysotile                                |
| HA-N                       | 12" x 12" Vinyl Floor Tile (off white / black)    | West Stairwell Upstairs / East & West Stairwell 1 <sup>st</sup> Floor           | Non-Friable  | No              | C-3                 | 3% Chrysotile                                |
| HA-O                       | Sheetrock and Joint Compound on Walls / Off White | 2 <sup>nd</sup> Floor Rooms 205, 219, 220 & 221                                 | Friable      | No              | C-3                 | 3% Chrysotile                                |
|                            | Joint Compound                                    |   |              |                 | C-3                 | 2.2% Point Count Method                      |
| HA-P                       | Suspended Ceiling Tiles (White Worm Hole Pattern) | 2 <sup>nd</sup> Floor Except Bathroom & Kitchen                                 | Friable      | No              | A                   | ND   |
| HA-Q                       | TSI Elbows / T's & 90 degree                      | 2 <sup>nd</sup> Floor above Suspended Ceiling                                   | Friable      | No              | C-3                 | 10% Chrysotile                               |
| HA-R                       | White Plaster Ceilings                            | 2 <sup>nd</sup> Floor Men's Restroom  | Friable      | No              | A                   | ND   |
| HA-S                       | Wall Sound Proofing Panels / White Small Holes    | 2 <sup>nd</sup> Floor Alarm Room  | Friable      | No              | A                   | ND   |
| HA-T                       | Roof Flashing Black Mastic                        | Roof of Building  | Non-Friable  | No              | A                   | ND   |
| HA-U                       | Roll Roofing / White Black / White                | Roof of Building  | Non-Friable  | No              | A                   | ND   |
| HA-V                       | Water Proofing / Black Mastic                     | Exterior Walls by Planters  | Non-Friable  | No              | C-3                 | 15% Chrysotile                               |



**TABLE 2: SUSPECT ACM ANALYTICAL RESULTS**

| <b>Homogenous Area No.</b> | <b>Material</b>                        | <b>Location</b>                              | <b>Type*</b> | <b>Damaged*</b> | <b>Hazard Risk*</b> | <b>Asbestos Content (ND = None Detected)</b> |
|----------------------------|--|--|--------------|-----------------|---------------------|--|
| HA-W                       | Wall Expansion Joint Putty / Exterior  | Between Exterior Walls                       | Non-Friable  | No              | A                   | ND   |
| HA-X                       | Fiberglass Batting Insulation / Yellow | West Wall Mechanical Room                    | Friable      | No              | A                   | ND   |
| HA-Y                       | Elbow Insulation                       | Overhead Southwest Corner of Mechanical Room | Friable      | No              | C-3                 | 10% Chrysotile                               |
| HA-Z                       | Ceiling Blanket                        | On Ceiling of Mechanical Room                | Friable      | No              | A                   | ND   |

## 2.4. Findings and Recommendations

### 2.4.1. Findings

ECS has completed an asbestos survey at the Fire Alarm Building located at 333 Preston, in Houston, Texas. The scope of services was to inspect the facility for the presence of asbestos-containing materials.

Twenty-Six (26) homogenous areas (ninety-seven (97) material samples) were identified which consisted of gasket material, window caulking, and mudded pipefittings. Based on visual surveillance, the following materials were identified as suspect Asbestos-Containing Materials (ACM):

- **12" Vinyl Floor Tile:** Approximately six hundred seventy two (672) square feet gray black vinyl floor tile over white floor tile with black mastic were located in rooms 101, 102 and 103 within the facility that appeared to be in good condition at the time of our site visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
- **12" Square Vinyl Floor Tile:** Approximately one thousand six hundred (1,600) square feet of 12" square white vinyl floor tile over black mastic material was located on the first floor throughout building that appeared to be in good condition at the time of our site visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
- **Brown Baseboard with Yellow Mastic:** Approximately four hundred (400) linear feet were located on the first floor that appeared to be in good condition at the time of our site visit. No asbestos found (City of Houston Category A).



- 
- Black Baseboard with Yellow Mastic: Approximately one thousand six hundred (1,600) linear feet were located in rooms 101, 102 and 103 that appeared to be in good condition at the time of our site visit. No asbestos found (City of Houston Category A).
  - **Sheetrock, Joint Compound, and Texture Walls and Ceilings: Approximately three thousand five hundred fifty (3,550) square feet were located on the north half of the first floor that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).**
  - Suspended Ceiling Tiles with White-Swirl: Approximately one thousand one hundred fifty (1,150) square feet were located throughout the first floor and in the 911 room and kitchen on the second floor that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - Lathe and White Plaster Ceiling: Approximately one hundred fifty (150) square feet were located in the men's and women's restroom on the first floor that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - **Pipe Elbows and Ts with White Coating: Approximately one hundred ten (110) linear feet were located above the suspended ceiling throughout the first floor that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).**
  - White Caulking: Approximately five (5) linear feet were located in the north hall above the drop ceiling tile that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - White Troweled-on Plaster: Approximately one hundred (100) square feet were located above the men's and women's restroom on the first floor that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - Yellow Carpet Mastic: Approximately six thousand three hundred ten (6,310) square feet were located on the second floor except in the kitchen and radio room that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - Brown Baseboards with Yellow and Brown Mastic: Approximately one thousand five hundred (1,500) linear feet were located on the second floor in all rooms except the restroom that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - **Gray/White/Black Roll Flooring: Approximately five hundred (500) square feet were located over white 12" x 12" floor tile and black mastic in the Radio Room on the second floor that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).**
-

- 
- **Off White 12" Square Vinyl Floor Tile and Black Mastic:** Approximately two hundred fifty (250) square feet were located in the east and west stairwells that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
  - **Off White Sheetrock and Joint Compound Walls:** Approximately eight thousand (8,000) square feet were located throughout the second floor except the fire alarm room that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
  - **Suspended Ceilings / White Worm Hole:** Approximately six thousand seven hundred (6,700) square feet were located throughout the second floor except in the kitchen bathroom that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - **White TSI Elbows T's:** Approximately sixty five (65) linear feet were located above the suspended ceiling tile on the second floor that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
  - **White Plaster Ceilings:** Approximately one hundred twenty (120) square feet were located in the men's restroom on the second floor that appeared to be in good condition at the time of our visit.
  - **Wall Sound Proofing Panels / White Small Holes:** Approximately thirty (30) square feet were located in the alarm room on the second floor that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - **Roof Flashing and Black Mastic:** Approximately sixty (60) linear feet were located on the roof of the building that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - **Roll Roofing / White / Black / White:** Approximately seven thousand three hundred (7,300) square feet were located on the roof of the building that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
  - **Gray Water Proofing with Black Mastic:** Approximately seven hundred fifty (750) square feet were located on the exterior walls by the planters that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).
  - **Wall Expansion Joint Putty / Exterior:** Approximately three hundred (300) linear feet were located between exterior walls that appeared to be in good condition at the time of our visit.
  - **Fiberglass Batting / White / Yellow:** Approximately two thousand two hundred (2,200) square feet were located in the mechanical room, boiler room and pump room area that
-

- appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).
- **Elbow Insulation: Approximately two hundred fifty (250) linear feet were located in the mechanical room, boiler room and pump room area on the first floor that appeared to be in good condition at the time of our visit. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).**
  - Ceiling Blanket / Yellow: Approximately one thousand seven hundred (1,700) square feet in the mechanical room, boiler room and pump room area that appeared to be in good condition at the time of our visit. No asbestos found (City of Houston Category A).

The following additional homogenous areas were identified as asbestos containing in the asbestos survey performed May 30, 1989 by Technology Serving People, Inc. that were not re-sampled or confirmed by ECS:

**Stack, Exhaust Pipe, and Hanger Insulation: Approximately four hundred fifty (450) linear feet of stack insulation was located throughout the Mechanical and Generator Room on the first floor and extended through the roof of the building. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3).**

#### **2.4.2. Recommendations**

Asbestos materials were detected for the samples collected and analyzed from the Fire Alarm Building. Asbestos present, no action necessary unless renovation, remodeling or demolition is planned (City of Houston Category C-3). Any renovation and/or demolition activities involving the disturbance or possible disturbance of ACM; these ACMs must be abated utilizing a qualified (i.e. certified and licensed) asbestos abatement contractor and consultant. Therefore, if the scope of work changes, it is possible that ACM located in the interior or exterior of the building could be disturbed.

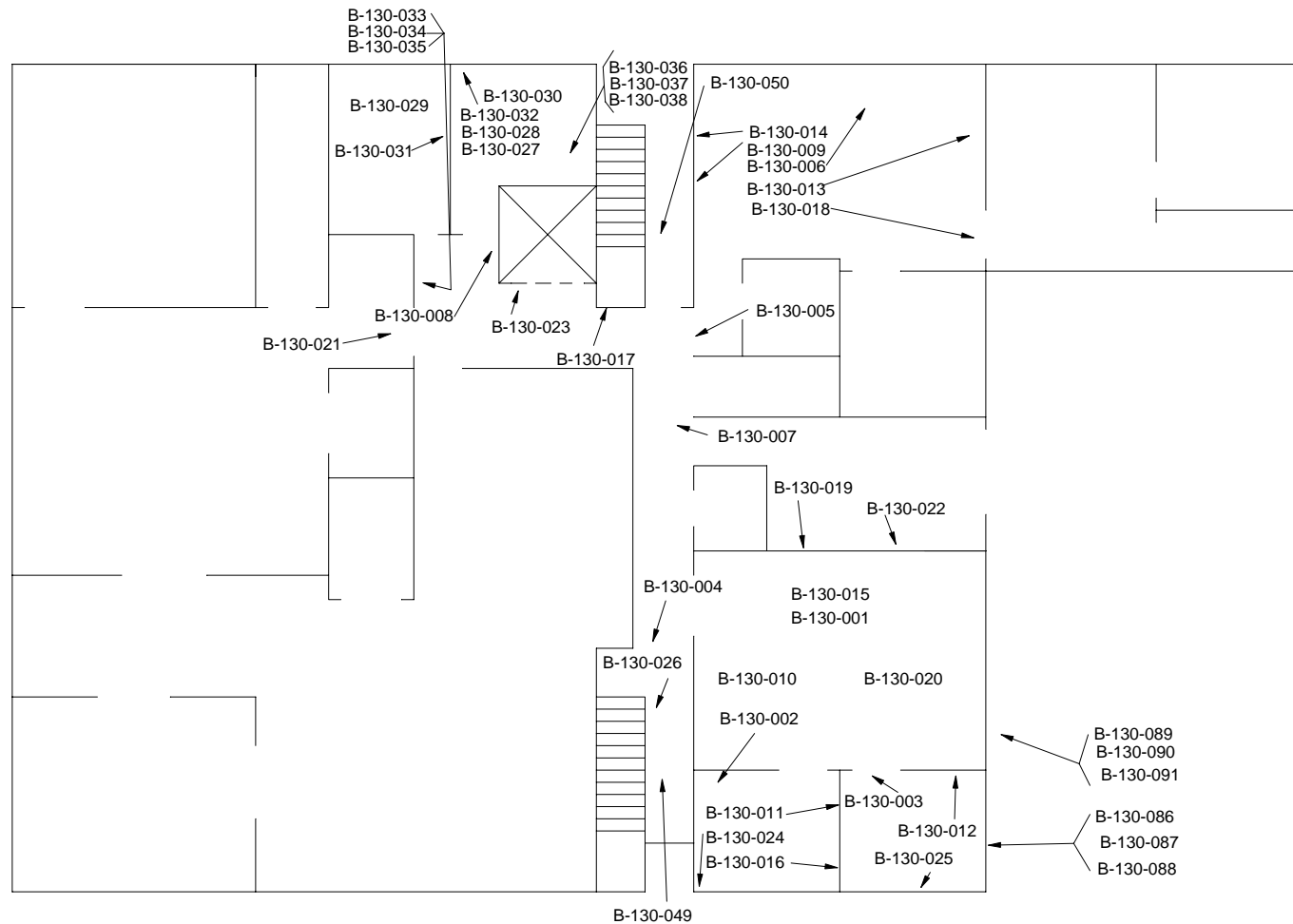
If during demolition and/or renovation activities, and prior to disposal, any unforeseen building materials that were not sampled for asbestos are discovered:

1. The suspect material should be analyzed for asbestos content and disposed of properly based on the analytical test results; or,
2. The construction material may be presumed asbestos-containing material, and disposed of following all applicable regulations.

3. It should be assumed that additional amounts of thermal systems insulation are located in all pipe chases that were inaccessible at the time of this survey.

**APPENDIX A**  
**FIGURES AND PHOTOGRAPHS**

# FIRST FLOOR



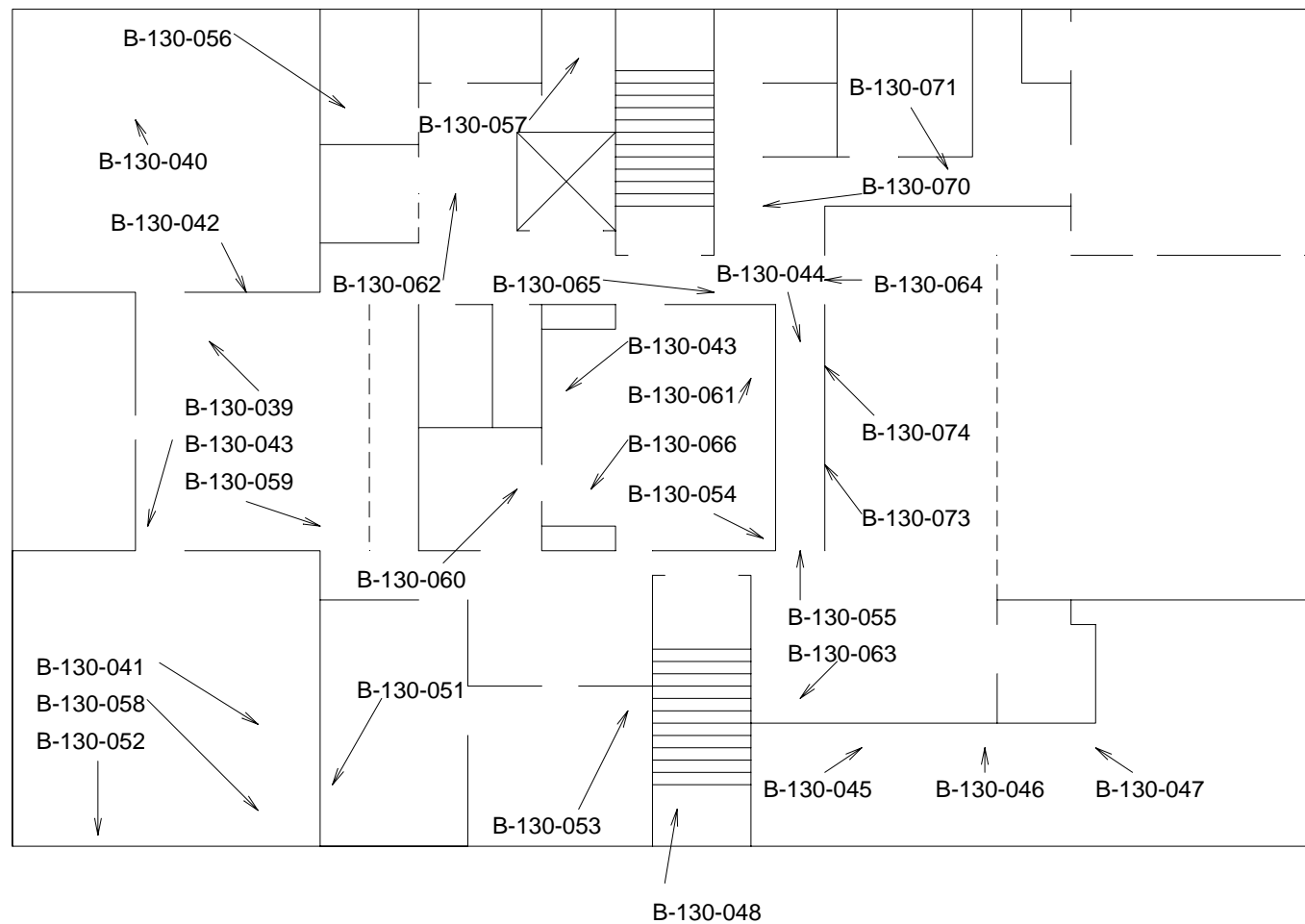
N

PROJECT NAME: Fire Alarm Building  
PROJECT ADDRESS: 333 Preston  
HOUSTON, TEXAS  
NOT TO SCALE

ENVIRONMENTAL CONSULTING SERVICES, INC.  
5718 WESTHEIMER ROAD  
SUITE # 1575  
HOUSTON, TEXAS 77057

ASBESTOS SAMPLE LOCATIONS  
DATE : 9/26/05  
PROJECT NO.: 50825130

## SECOND FLOOR



N ←

PROJECT NAME: Fire Alarm Building  
PROJECT ADDRESS: 333 Preston  
HOUSTON, TEXAS  
NOT TO SCALE

ENVIRONMENTAL CONSULTING SERVICES, INC.  
5718 WESTHEIMER ROAD  
SUITE # 1575  
HOUSTON, TEXAS 77057

ASBESTOS LOCATION DIAGRAM  
DATE : 9/26/05  
PROJECT NO.: 50825130



Photo No. 1: B-130-001 ACM 12x12 Gray / off white / black floor tile with mastic



Photo No. 2: B-130-004 ACM 12x12 White / black floor tile with mastic





Photo No. 3: B-130-013 ACM Sheet rock / Joint compound / texture, white



Photo No. 4: B-130-031 ACM Pipe insulation white/yellow coating.



Photo No. 5: B-130-045 ACM Roll flooring / Gray / White / Black

# No Picture Available

Photo No. 6: B-130-048 ACM 12x12 VFT, off white/ black



Photo No. 7: B-130-051 ACM Sheet rock / Joint compound



Photo No. 8: B-130-065 ACM TSI white / yellow above suspended ceiling outside room 205





Photo No. 9: B-130-085 ACM Waterproofing, Gray / Black

No Picture Available

Photo No.10: B-130-094 ACM Elbow insulation, wrap coating, Yellow / White

**APPENDIX B  
ANALYTICAL RESULTS  
AND  
CHAIN-OF-CUSTODY**

# EMC LABS, INC.

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Laboratory Report

0035882

## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location | Layer Name /<br>Sample Description  | Asbestos<br>Detected | Asbestos Type<br>(%) |     | Non-Asbestos<br>Constituents   |
|--------------------------|--------------------|---|----------------------|----------------------|-----|--|
| 0035882-001<br>B-130-001 | IN ROOM 101        | LAYER 1<br>12"x12" Floor Tile, Gray   | No                   |                      |     | Carbonates<br>Gypsum<br>Quartz<br>Binder/Filler 100%                       |
|                          |                    | LAYER 2<br>Mastic, Yellow   | No                   |                      |     | Cellulose Fiber <1%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 99% |
|                          |                    | LAYER 3<br>12"x12" Floor Tile, White  | Yes                  | Chrysotile           | 3%  | Carbonates<br>Gypsum<br>Quartz<br>Binder/Filler 97%                        |
|                          |                    | LAYER 4<br>Mastic, Black  | Yes                  | Chrysotile           | 10% | Gypsum<br>Carbonates<br>Binder/Filler 90%                                  |
| 0035882-002<br>B-130-002 | IN ROOM 102        | LAYER 1<br>12"x12" Floor Tile, Gray   | No                   |                      |     | Carbonates<br>Gypsum<br>Quartz<br>Binder/Filler 100%                       |
|                          |                    | LAYER 2<br>Mastic, Yellow   | No                   |                      |     | Cellulose Fiber 3%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 97%  |
|                          |                    | LAYER 3<br>12"x12" Floor Tile, White<br>Note: *Not analyzed per client<br>request |                      |                      |     |  |
|                          |                    | LAYER 4<br>Mastic, Black<br>Note: *Not analyzed per client<br>request             |                      |                      |     |  |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location        | Layer Name /<br>Sample Description  | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents  |
|--------------------------|---------------------------|---|----------------------|----------------------|---|
| 0035882-003<br>B-130-003 | IN ROOM 103               | LAYER 1<br>12"x12" Floor Tile, Gray   | No                   |                      | Carbonates<br>Gypsum<br>Quartz<br>Binder/Filler 100%                      |
|                          |                           | LAYER 2<br>Mastic, Yellow   | No                   |                      | Cellulose Fiber 3%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 97% |
|                          |                           | LAYER 3<br>12"x12" Floor Tile, White<br>Note: *Not analyzed per client<br>request |                      |                      |   |
|                          |                           | LAYER 4<br>Mastic, Black<br>Note: *Not analyzed per client<br>request             |                      |                      |   |
| 0035882-004<br>B-130-004 | IN HALL<br>OUTSIDE RM 101 | LAYER 1<br>12"x12" Floor Tile, White/ Black                                       | Yes                  | Chrysotile 3%        | Carbonates<br>Gypsum<br>Quartz<br>Binder/Filler 97%                       |
|                          |                           | LAYER 2<br>Mastic, Black  | Yes                  | Chrysotile 10%       | Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 90%                       |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
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| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location                         | Layer Name /<br>Sample Description   | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents                                 |
|--------------------------|--|--|----------------------|----------------------|--|
| 0035882-005<br>B-130-005 | IN HALL<br>OUTSIDE<br>ELEVATOR (1ST<br>FL) | LAYER 1<br>12"x12" Floor Tile, White/ Black<br>Note: *Not analyzed per client<br>request |                      |                      |  |
|                          |  | LAYER 2<br>Mastic, Black<br>Note: *Not analyzed per client<br>request                    |                      |                      |  |
| 0035882-006<br>B-130-006 | IN RM OUTSIDE<br>105 (1ST FL)              | LAYER 1<br>12"x12" Floor Tile, White/ Black<br>Note: *Not analyzed per client<br>request |                      |                      |  |
|                          |  | LAYER 2<br>Mastic, Black<br>Note: *Not analyzed per client<br>request                    |                      |                      |  |
| 0035882-007<br>B-130-007 | IN HALL<br>OUTSIDE RM 100<br>(1ST FL)      | LAYER 1<br>Baseboard, Brown  | No                   |                      | Gypsum<br>Quartz<br>Binder/Filler 100%                       |
|                          |  | LAYER 2<br>Baseboard Mastic, Yellow  | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Quartz<br>Binder/Filler 99% |
| 0035882-008<br>B-130-008 | BY ELEVATOR<br>(1ST FL)                    | LAYER 1<br>Baseboard, Brown  | No                   |                      | Gypsum<br>Quartz<br>Binder/Filler 100%                       |
|                          |  | LAYER 2<br>Baseboard Mastic, Yellow  | No                   |                      | Cellulose Fiber 3%<br>Gypsum<br>Quartz<br>Binder/Filler 97%  |



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Laboratory Report

0035882

## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location               | Layer Name /<br>Sample Description  | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents                         |
|--------------------------|----------------------------------|-------------------------------------|----------------------|----------------------|--|
| 0035882-009<br>B-130-009 | IN RM N. OF 109<br>(1ST FL)      | LAYER 1<br>Baseboard, Brown         | No                   |                      |  |
|                          |                                  |                                     |                      |                      | Gypsum<br>Quartz<br>Binder/Filler 100%               |
|                          |                                  | LAYER 2<br>Baseboard Mastic, Yellow | No                   |                      | Cellulose Fiber <1%                                  |
|                          |                                  |                                     |                      |                      | Gypsum<br>Quartz<br>Binder/Filler 99%                |
| 0035882-010<br>B-130-010 | IN RMS 101, 102,<br>103 (1ST FL) | LAYER 1<br>Baseboard, Black         | No                   |                      |  |
|                          |                                  |                                     |                      |                      | Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 100% |
|                          |                                  | LAYER 2<br>Baseboard Mastic, Yellow | No                   |                      | Cellulose Fiber <1%                                  |
|                          |                                  |                                     |                      |                      | Carbonates<br>Quartz<br>Binder/Filler 99%            |
| 0035882-011<br>B-130-011 | IN RM 102 (1ST<br>FL)            | LAYER 1<br>Baseboard, Black         | No                   |                      |  |
|                          |                                  |                                     |                      |                      | Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 100% |
|                          |                                  | LAYER 2<br>Baseboard Mastic, Yellow | No                   |                      | Cellulose Fiber <1%                                  |
|                          |                                  |                                     |                      |                      | Carbonates<br>Quartz<br>Binder/Filler 99%            |

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Laboratory Report

0035882

## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location    | Layer Name /<br>Sample Description        | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|-----------------------|---|----------------------|----------------------|--|
| 0035882-012<br>B-130-012 | IN RM 103 (1ST<br>FL) | LAYER 1<br>Baseboard, Black               | No                   |                      | Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 100%   |
|                          |                       | LAYER 2<br>Baseboard Mastic, Yellow       | No                   |                      | Cellulose Fiber <1%<br>Carbonates<br>Quartz<br>Binder/Filler 99%                             |
|                          |                       | LAYER 1<br>Sheetrock, White               | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
|                          |                       | LAYER 2<br>Joint Compound, White          | Yes                  | Chrysotile 3%        | Cellulose Fiber 1%<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 96%                      |
| 0035882-013<br>B-130-013 | THROUGHOUT<br>1ST FL  | LAYER 3<br>Texture, White                 | Yes                  | Chrysotile 3%        | Cellulose Fiber <1%<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 96%                     |
|                          |                       | LAYER 1<br>Sheetrock, White               | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
|                          |                       | LAYER 2<br>Joint Compound, White          |                      |                      |  |
|                          |                       | Note: *Not analyzed per client<br>request |                      |                      |  |
| 0035882-014<br>B-130-014 | THROUGHOUT<br>1ST FL  | LAYER 1<br>Sheetrock, White               | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
|                          |                       | LAYER 2<br>Joint Compound, White          |                      |                      |  |
|                          |                       | Note: *Not analyzed per client<br>request |                      |                      |  |
|                          |                       |   |                      |                      |  |

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Laboratory Report

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location   | Layer Name /<br>Sample Description   | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|----------------------|--|----------------------|----------------------|--|
| 0035882-015<br>B-130-015 | THROUGHOUT<br>1ST FL | LAYER 1<br>Sheetrock, White<br><br>LAYER 2<br>Joint Compound, White<br>Note: *Not analyzed per client<br>request<br><br>LAYER 3<br>Texture, White<br>Note: *Not analyzed per client<br>request | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br><br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
| 0035882-016<br>B-130-016 | THROUGHOUT<br>1ST FL | LAYER 1<br>Sheetrock, White<br><br>LAYER 2<br>Joint Compound, White<br>Note: *Not analyzed per client<br>request<br><br>LAYER 3<br>Texture, White<br>Note: *Not analyzed per client<br>request | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br><br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location   | Layer Name /<br>Sample Description   | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|----------------------|--|----------------------|----------------------|--|
| 0035882-017<br>B-130-017 | THROUGHOUT<br>1ST FL | LAYER 1<br>Sheetrock, White<br><br>LAYER 2<br>Joint Compound, White<br>Note: *Not analyzed per client<br>request<br><br>LAYER 3<br>Texture, White<br>Note: *Not analyzed per client<br>request | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br><br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
| 0035882-018<br>B-130-018 | THROUGHOUT<br>1ST FL | LAYER 1<br>Sheetrock, White<br><br>LAYER 2<br>Joint Compound, White<br>Note: *Not analyzed per client<br>request   | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br><br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
| 0035882-019<br>B-130-019 | THROUGHOUT<br>1ST FL | LAYER 1<br>Sheetrock, White<br><br>LAYER 2<br>Joint Compound, White<br>Note: *Not analyzed per client<br>request   | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br><br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location   | Layer Name /<br>Sample Description   | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents  |
|--------------------------|----------------------|--------------------------------------|----------------------|----------------------|---|
| 0035882-020<br>B-130-020 | THROUGHOUT<br>1ST FL | Suspended Ceiling Tiles, White-Swirl | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
| 0035882-021<br>B-130-021 | THROUGHOUT<br>1ST FL | Suspended Ceiling Tiles, White-Swirl | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
| 0035882-022<br>B-130-022 | THROUGHOUT<br>1ST FL | Suspended Ceiling Tiles, White-Swirl | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
| 0035882-023<br>B-130-023 | THROUGHOUT<br>1ST FL | Suspended Ceiling Tiles, White-Swirl | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
| 0035882-024<br>B-130-024 | THROUGHOUT<br>1ST FL | Suspended Ceiling Tiles, White-Swirl | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
| 0035882-025<br>B-130-025 | THROUGHOUT<br>1ST FL | Suspended Ceiling Tiles, White-Swirl | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location                           | Layer Name /<br>Sample Description   | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|--|--------------------------------------|----------------------|----------------------|--|
| 0035882-026<br>B-130-026 | THROUGHOUT<br>1ST FL                         | Suspended Ceiling Tiles, White-Swirl | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br><br>Carbonates<br>Perlite<br>Binder/Filler 20%        |
| 0035882-027<br>B-130-027 | MEN/WOMENS<br>RESTMR 1ST FL<br>(BY ELEVATOR) | Lath Plaster Ceiling, White          | No                   |                      | <br><br><br>Gypsum<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 100%                         |
| 0035882-028<br>B-130-028 | MEN/WOMENS<br>RESTMR 1ST FL<br>(BY ELEVATOR) | Lath Plaster Ceiling, White          | No                   |                      | <br><br><br>Gypsum<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 100%                         |
| 0035882-029<br>B-130-029 | MEN/WOMENS<br>RESTMR 1ST FL<br>(BY ELEVATOR) | Lath Plaster Ceiling, White          | No                   |                      | Cellulose Fiber <1%<br><br><br>Gypsum<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 99%       |
| 0035882-030<br>B-130-030 | ABOVE MENS<br>RESTRM 1ST FL                  | Pipe Elbow Mud, White                | No                   |                      | Mineral Wool 30%<br>Cellulose Fiber <1%<br><br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 69% |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location  | Layer Name /<br>Sample Description       | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents               |
|--------------------------|---|--|----------------------|----------------------|--|
| 0035882-031<br>B-130-031 | ABOVE PLASTER<br>CEILING IN<br>WOMENS<br>RESTRM 1ST FL        | LAYER 1<br>Pipe Insulation, White/Yellow | No                   |                      | Fibrous Glass 98%                          |
|                          |   |  |                      |                      | Binder/Filler 2%                           |
|                          |   | LAYER 2<br>Wrap, Silver                  | No                   |                      | Cellulose Fiber 60%                        |
|                          |   |  |                      |                      | Fibrous Glass 10%                          |
|                          |   |  |                      |                      | Aluminum Carbonates Binder/Filler 30%      |
|                          |   | LAYER 3<br>Coating, White                | Yes                  | Chrysotile 10%       | Cellulose Fiber 2%                         |
| 0035882-032<br>B-130-032 | ABOVE PLASTER<br>CEILING IN<br>MENS RESTRM<br>1ST FL          | LAYER 1<br>Pipe Insulation, Yellow       | No                   |                      | Fibrous Glass 98%                          |
|                          |   |  |                      |                      | Binder/Filler 2%                           |
|                          |   | LAYER 2<br>Wrap, Silver                  | No                   |                      | Cellulose Fiber 60%                        |
|                          |   |  |                      |                      | Fibrous Glass 10%                          |
|                          |   |  |                      |                      | Aluminum Carbonates Binder/Filler 30%      |
|                          |   |  |                      |                      |  |
| 0035882-033<br>B-130-033 | N. END OF 1ST FL<br>HALLWAY-<br>ABOVE<br>SUSPENDED<br>CEILING | Caulk, White                             | No                   |                      | Cellulose Fiber <1%                        |
|                          |   |  |                      |                      | Gypsum Carbonates Quartz Binder/Filler 99% |



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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location   | Layer Name /<br>Sample Description | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|--|------------------------------------|----------------------|----------------------|--|
| 0035882-034<br>B-130-034 | N. END OF 1ST FL<br>HALLWAY-<br>ABOVE<br>SUSPENDED<br>CEILING  | Caulk, White                       | No                   |                      | Cellulose Fiber <1%<br><br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 99% |
| 0035882-035<br>B-130-035 | N. END OF 1ST FL<br>HALLWAY-<br>ABOVE<br>SUSPENDED<br>CEILING  | Caulk, White                       | No                   |                      | Cellulose Fiber <1%<br><br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 99% |
| 0035882-036<br>B-130-036 | 1ST FL ABOVE<br>PLASTER<br>CEILING IN<br>MENS/WOMENS<br>RESTRM | Troweled on Plaster, Off White     | No                   |                      | Mineral Wool <1%<br><br>Gypsum<br>Perlite<br>Mica<br>Binder/Filler 99%         |
| 0035882-037<br>B-130-037 | 1ST FL ABOVE<br>PLASTER<br>CEILING IN<br>MENS/WOMENS<br>RESTRM | Troweled on Plaster, Off White     | No                   |                      | Cellulose Fiber <1%<br><br>Gypsum<br>Perlite<br>Mica<br>Binder/Filler 99%      |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location   | Layer Name /<br>Sample Description | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents  |
|--------------------------|--|------------------------------------|----------------------|----------------------|---|
| 0035882-038<br>B-130-038 | 1ST FL ABOVE<br>PLASTER<br>CEILING IN<br>MENS/WOMENS<br>RESTRM | Troweled on Plaster, Off White     | No                   |                      | Cellulose Fiber <1%<br><br>Gypsum<br>Perlite<br>Mica<br>Binder/Filler 99% |
| 0035882-039<br>B-130-039 | ALL 2ND FL<br>EXCEPT<br>(KITCHEN, K<br>STORE, RESTRM<br>STAIR) | Carpet Mastic, Yellow              | No                   |                      | Cellulose Fiber <1%<br><br>Gypsum<br>Quartz<br>Binder/Filler 99%          |
| 0035882-040<br>B-130-040 | RM 225   | Carpet Mastic, Yellow              | No                   |                      | Gypsum<br>Quartz<br>Binder/Filler 100%                                    |
| 0035882-041<br>B-130-041 | 2ND FL IN RM 222   | Carpet Mastic, Yellow              | No                   |                      | Gypsum<br>Quartz<br>Binder/Filler 100%                                    |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location | Layer Name /<br>Sample Description  | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|--------------------|-------------------------------------|----------------------|----------------------|--|
| 0035882-042<br>B-130-042 | 2ND FL IN RM 225   | LAYER 1<br>Baseboard, Brown         | No                   |                      | Carbonates<br>Quartz<br>Binder/Filler 100%                                 |
|                          |                    | LAYER 2<br>Baseboard Mastic, Yellow | No                   |                      | Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 100%                       |
|                          |                    | LAYER 3<br>Baseboard Mastic, Brown  | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Quartz<br>Binder/Filler 99%               |
| 0035882-043<br>B-130-043 | 2ND FL IN RM 209   | LAYER 1<br>Baseboard, Brown         | No                   |                      | Carbonates<br>Quartz<br>Binder/Filler 100%                                 |
|                          |                    | LAYER 2<br>Baseboard Mastic, Yellow | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 99% |
|                          |                    | LAYER 3<br>Baseboard Mastic, Brown  | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Quartz<br>Binder/Filler 99%               |

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NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location                      | Layer Name /<br>Sample Description         | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|---|--|----------------------|----------------------|--|
| 0035882-044<br>B-130-044 | HALL S. OF RM<br>205                    | LAYER 1<br>Baseboard, Brown                | No                   |                      | Carbonates<br>Quartz<br>Binder/Filler 100%   |
|                          |   | LAYER 2<br>Baseboard Mastic, Yellow        | No                   |                      | Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 100%   |
|                          |   | LAYER 3<br>Baseboard Mastic, Brown         | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Quartz<br>Binder/Filler 99%                                     |
| 0035882-045<br>B-130-045 | 2ND FL RADIO<br>RM SW CORNER<br>OF BLDG | LAYER 1<br>Roll Flooring, Gray/White/Black | No                   |                      | Cellulose Fiber 20%<br>Synthetic Fiber 5%  |
|                          |   | LAYER 2<br>Floor Tile, Off White           | Yes                  | Chrysotile 3%        | Gypsum<br>Mica<br>Perlite<br>Binder/Filler 75%   |
|                          |   | LAYER 3<br>Mastic, Black                   | Yes                  | Chrysotile 10%       | Carbonates<br>Gypsum<br>Quartz<br>Binder/Filler 97%<br>Gypsum<br>Carbonates<br>Binder/Filler 90% |

# EMC LABS, INC.

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Laboratory Report

0035882

## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location                      | Layer Name /<br>Sample Description  | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents  |
|--------------------------|---|---|----------------------|----------------------|---|
| 0035882-046<br>B-130-046 | 2ND FL RADIO<br>RM SW CORNER<br>OF BLDG | LAYER 1<br>Roll Flooring, Gray/White/Black<br><br>LAYER 2<br>Floor Tile, Beige Streaked<br>Note: *Not analyzed per client<br>request<br><br>LAYER 3<br>Mastic, Black/ Yellow<br>Note: *Not analyzed per client<br>request | No                   |                      | Cellulose Fiber 20%<br>Synthetic Fiber 5%<br><br>Gypsum<br>Mica<br>Perlite<br>Binder/Filler 75% |
| 0035882-047<br>B-130-047 | 2ND FL RADIO<br>RM SW CORNER<br>OF BLDG | LAYER 1<br>Roll Flooring, Gray/White/Black<br><br>LAYER 2<br>Floor Tile, Beige Streaked<br>Note: *Not analyzed per client<br>request<br><br>LAYER 3<br>Mastic, Black/ Yellow<br>Note: *Not analyzed per client<br>request | No                   |                      | Cellulose Fiber 20%<br>Synthetic Fiber 5%<br><br>Gypsum<br>Mica<br>Perlite<br>Binder/Filler 75% |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location            | Layer Name /<br>Sample Description   | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents                        |
|--------------------------|-------------------------------|--|----------------------|----------------------|---|
| 0035882-048<br>B-130-048 | WEST<br>STAIRWELL<br>UPSTAIRS | LAYER 1<br>12"x12" VFT, Off White/Black  | Yes                  | Chrysotile 3%        |   |
|                          |                               |  |                      |                      | Carbonates<br>Gypsum<br>Quartz<br>Binder/Filler 97% |
|                          |                               | LAYER 2<br>Mastic, Black   | Yes                  | Chrysotile 10%       |   |
|                          |                               |  |                      |                      | Gypsum<br>Carbonates<br>Binder/Filler 90%           |
| 0035882-049<br>B-130-049 | WEST<br>STAIRWELL (1ST<br>FL) | LAYER 1<br>12"x12" VFT, Off White/Black<br>Note: *Not analyzed per client<br>request |                      |                      |   |
|                          |                               | LAYER 2<br>Mastic, Black<br>Note: *Not analyzed per client<br>request                |                      |                      |   |
| 0035882-050<br>B-130-050 | EAST<br>STAIRWELL (1ST<br>FL) | LAYER 1<br>12"x12" VFT, Off White/Black<br>Note: *Not analyzed per client<br>request |                      |                      |   |
|                          |                               | LAYER 2<br>Mastic, Black<br>Note: *Not analyzed per client<br>request                |                      |                      |   |
| 0035882-051<br>B-130-051 | 2ND FL RM 220                 | Sheetrock, Off White   | No                   |                      | Cellulose Fiber 10%                                 |
|                          |                               |  |                      |                      | Fibrous Glass 3%                                    |
|                          |                               |  |                      |                      | Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87%   |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location   | Layer Name /<br>Sample Description   | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|----------------------|--|----------------------|----------------------|--|
| 0035882-052<br>B-130-052 | 2ND FL RM 221        | LAYER 1<br>Sheetrock, Off White  | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
|                          |                      | LAYER 2<br>Joint Compound, White   | Yes                  | Chrysotile 3%        | Carbonates<br>Mica<br>Quartz<br>Binder/Filler 97%  |
| 0035882-053<br>B-130-053 | 2ND FL RM 219        | LAYER 1<br>Sheetrock, Off White  | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
|                          |                      | LAYER 2<br>Joint Compound, Blue<br>Note: *Not analyzed per client request  |                      |                      |  |
| 0035882-054<br>B-130-054 | 2ND FL RM 205        | LAYER 1<br>Sheetrock, Off White  | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
|                          |                      | LAYER 2<br>Joint Compound, White<br>Note: *Not analyzed per client request |                      |                      |  |
| 0035882-055<br>B-130-055 | 2ND FL SOUTH<br>WALL | Sheetrock, Off White   | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |



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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
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| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location | Layer Name /<br>Sample Description   | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|--------------------|--|----------------------|----------------------|--|
| 0035882-056<br>B-130-056 | 2ND FL RM 215      | LAYER 1<br>Sheetrock, Off White<br><br>LAYER 2<br>Joint Compound, White<br>Note: *Not analyzed per client<br>request | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
| 0035882-057<br>B-130-057 | 2ND FL RM 217      | LAYER 1<br>Sheetrock, Off White<br><br>LAYER 2<br>Joint Compound, White<br>Note: *Not analyzed per client<br>request | No                   |                      | Cellulose Fiber 10%<br>Fibrous Glass 3%<br>Gypsum<br>Carbonates<br>Mica<br>Binder/Filler 87% |
| 0035882-058<br>B-130-058 | 2ND FL RM 222      | Suspended Ceiling Tile, White  | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20%        |
| 0035882-059<br>B-130-059 | 2ND FL RM 209      | Suspended Ceiling Tile, White  | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20%        |
| 0035882-060<br>B-130-060 | 2ND FL RM 208      | Suspended Ceiling Tile, White  | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20%        |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

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| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location                  | Layer Name /<br>Sample Description | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents  |
|--------------------------|-------------------------------------|------------------------------------|----------------------|----------------------|---|
| 0035882-061<br>B-130-061 | REF FAB-DH 007<br>RM 205 (2ND FL)   | Suspended Ceiling Tile, White      | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
| 0035882-062<br>B-130-062 | IN HALL<br>OUTSIDE RM 206           | Suspended Ceiling Tile, White      | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
| 0035882-063<br>B-130-063 | KITCHEN (2ND<br>FL)                 | Suspended Ceiling Tile, White      | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
| 0035882-064<br>B-130-064 | IN HALL BY<br>STAIRWELL (2ND<br>FL) | Suspended Ceiling Tile, White      | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
| 0035882-065<br>B-130-065 | IN HALL<br>OUTSIDE RM 205           | LAYER 1<br>TSI, White/Yellow       | No                   |                      | Fibrous Glass 98%<br>Binder/Filler 2%   |
|                          |                                     | LAYER 2<br>Wrap/ Coating, White    | Yes                  | Chrysotile 10%       | Talc 5%<br>Carbonates<br>Gypsum<br>Binder/Filler 85%                                  |

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| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location                            | Layer Name /<br>Sample Description                                  | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents |
|--------------------------|---|---|----------------------|----------------------|------------------------------|
| 0035882-066<br>B-130-066 | ABOVE<br>SUSPENDED<br>CEILING IN 205          | LAYER 1<br>TSI, White/Yellow  | No                   |                      | Fibrous Glass 98%            |
|                          |   |   |                      |                      | Binder/Filler 2%             |
|                          |   | LAYER 2<br>Wrap, White<br>Note: *Not analyzed per client<br>request |                      |                      |                              |
| 0035882-067<br>B-130-067 | IN WEST HALL<br>NEAR<br>STAIRWELL (2ND<br>FL) | LAYER 1<br>TSI, White/Yellow  | No                   |                      | Fibrous Glass 98%            |
|                          |   |   |                      |                      | Binder/Filler 2%             |
|                          |   | LAYER 2<br>Wrap, White<br>Note: *Not analyzed per client<br>request |                      |                      |                              |
| 0035882-068<br>B-130-068 | IN RESTRM S. OF<br>STAIRWELL (E)<br>2ND FL    | LAYER 1<br>TSI, White/Yellow  | No                   |                      | Fibrous Glass 98%            |
|                          |   |   |                      |                      | Binder/Filler 2%             |
|                          |   | LAYER 2<br>Wrap, White<br>Note: *Not analyzed per client<br>request |                      |                      |                              |
| 0035882-069<br>B-130-069 | ABOVE KITCHEN<br>AREA (2ND FL)                | LAYER 1<br>TSI, White/Yellow  | No                   |                      | Fibrous Glass 98%            |
|                          |   |   |                      |                      | Binder/Filler 2%             |
|                          |   | LAYER 2<br>Wrap, White<br>Note: *Not analyzed per client<br>request |                      |                      |                              |

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NVLAP#101926-0

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|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location      | Layer Name /<br>Sample Description | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|-------------------------|------------------------------------|----------------------|----------------------|--|
| 0035882-070<br>B-130-070 | MENS RESTRM<br>(2ND FL) | LAYER 1<br>Ceiling Plaster, White  | No                   |                      | Gypsum<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 100%               |
|                          |                         | LAYER 2<br>Ceiling Lathe, White    | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 99% |
|                          |                         | LAYER 1<br>Ceiling Plaster, White  | No                   |                      | Gypsum<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 100%               |
|                          |                         | LAYER 2<br>Ceiling Lathe, White    | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 99% |
| 0035882-071<br>B-130-071 | MENS RESTRM<br>(2ND FL) | LAYER 1<br>Ceiling Plaster, White  | No                   |                      | Gypsum<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 100%               |
|                          |                         | LAYER 2<br>Ceiling Lathe, White    | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 99% |
|                          |                         | LAYER 1<br>Ceiling Plaster, White  | No                   |                      | Gypsum<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 100%               |
|                          |                         | LAYER 2<br>Ceiling Lathe, White    | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 99% |
| 0035882-072<br>B-130-072 | MENS RESTRM<br>(2ND FL) | LAYER 1<br>Ceiling Plaster, White  | No                   |                      | Gypsum<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 100%               |
|                          |                         | LAYER 2<br>Ceiling Lathe, White    | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 99% |
|                          |                         | LAYER 1<br>Ceiling Plaster, White  | No                   |                      | Gypsum<br>Carbonates<br>Mica<br>Quartz<br>Binder/Filler 100%               |
|                          |                         | LAYER 2<br>Ceiling Lathe, White    | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 99% |

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NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location               | Layer Name /<br>Sample Description                   | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents  |
|--------------------------|----------------------------------|--|----------------------|----------------------|---|
| 0035882-073<br>B-130-073 | IN FIRE ALARM<br>RM, N,E,W WALLS | LAYER 1<br>Wall Soundproofing Panel, White/<br>Beige | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
|                          |                                  | LAYER 2<br>Wall Soundproofing Panel, Off White       | No                   |                      | Synthetic Fiber 90%<br>Binder/Filler 10%  |
|                          |                                  | LAYER 1<br>Wall Soundproofing Panel, White/<br>Beige | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
|                          |                                  | LAYER 2<br>Wall Soundproofing Panel, Off White       | No                   |                      | Synthetic Fiber 90%<br>Binder/Filler 10%  |
| 0035882-074<br>B-130-074 | IN FIRE ALARM<br>RM, N,E,W WALLS | LAYER 1<br>Wall Soundproofing Panel, White/<br>Beige | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
|                          |                                  | LAYER 2<br>Wall Soundproofing Panel, Off White       | No                   |                      | Synthetic Fiber 90%<br>Binder/Filler 10%  |
|                          |                                  | LAYER 1<br>Wall Soundproofing Panel, White/<br>Beige | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
|                          |                                  | LAYER 2<br>Wall Soundproofing Panel, Off White       | No                   |                      | Synthetic Fiber 90%<br>Binder/Filler 10%  |
| 0035882-075<br>B-130-075 | IN FIRE ALARM<br>RM, N,E,W WALLS | LAYER 1<br>Wall Soundproofing Panel, White/<br>Beige | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
|                          |                                  | LAYER 2<br>Wall Soundproofing Panel, Off White       | No                   |                      | Synthetic Fiber 90%<br>Binder/Filler 10%  |
|                          |                                  | LAYER 1<br>Wall Soundproofing Panel, White/<br>Beige | No                   |                      | Cellulose Fiber 40%<br>Mineral Wool 40%<br>Carbonates<br>Perlite<br>Binder/Filler 20% |
|                          |                                  | LAYER 2<br>Wall Soundproofing Panel, Off White       | No                   |                      | Synthetic Fiber 90%<br>Binder/Filler 10%  |
| 0035882-076<br>B-130-076 | SW CORNER<br>AREA OF ROOF        | Roofing Flashing Mastic/ Tar, Black                  | No                   |                      | Gypsum<br>Carbonates<br>Binder/Filler 100%  |
|                          |                                  |  |                      |                      |   |
| 0035882-077<br>B-130-077 | SW CORNER<br>AREA OF ROOF        | Roofing Flashing Mastic/ Tar, Black                  | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Quartz<br>Binder/Filler 99%                          |
|                          |                                  |  |                      |                      |   |

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## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location        | Layer Name /<br>Sample Description      | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents                      |
|--------------------------|---------------------------|---|----------------------|----------------------|---|
| 0035882-078<br>B-130-078 | NE CORNER<br>AREA OF ROOF | Roofing Flashing Mastic/ Tar, Black     | No                   |                      | Cellulose Fiber <1%                               |
|                          |                           |   |                      |                      | Gypsum Binder/Filler 99%                          |
| 0035882-079<br>B-130-079 | SW AREA OF<br>ROOF        | LAYER 1<br>Rolled Roofing, White/ Black | No                   |                      | Fibrous Glass 15%                                 |
|                          |                           |   |                      |                      | Gypsum Carbonates Binder/Filler 85%               |
|                          |                           | LAYER 2<br>Plaster, Off White           | No                   |                      | Cellulose Fiber <1%                               |
|                          |                           |   |                      |                      | Gypsum Perlite Mica Carbonates Binder/Filler 99%  |
| 0035882-080<br>B-130-080 | CENTER OF ROOF            | LAYER 1<br>Rolled Roofing, White/ Black | No                   |                      | Fibrous Glass 15%                                 |
|                          |                           |   |                      |                      | Gypsum Quartz Binder/Filler 85%                   |
|                          |                           | LAYER 2<br>Plaster, Off White           | No                   |                      | Gypsum Perlite Mica Carbonates Binder/Filler 100% |
|                          |                           |   |                      |                      |   |
| 0035882-081<br>B-130-081 | SOUTH END OF<br>ROOF      | LAYER 1<br>Rolled Roofing, White/ Black | No                   |                      | Fibrous Glass 15%                                 |
|                          |                           |   |                      |                      | Gypsum Carbonates Binder/Filler 85%               |
|                          |                           | LAYER 2<br>Plaster, Off White           | No                   |                      | Cellulose Fiber <1%                               |
|                          |                           |   |                      |                      | Gypsum Perlite Mica Carbonates Binder/Filler 99%  |

# EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044  
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report

0035882

## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location     | Layer Name /<br>Sample Description      | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents                                  |
|--------------------------|------------------------|---|----------------------|----------------------|---|
| 0035882-082<br>B-130-082 | NE CORNER OF<br>ROOF   | LAYER 1<br>Rolled Roofing, White/ Black | No                   |                      | Fibrous Glass 15%   |
|                          |                        |   |                      |                      | Gypsum<br>Carbonates<br>Binder/Filler 85%                     |
|                          |                        | LAYER 2<br>Plaster, Off White           | No                   |                      | Cellulose Fiber <1%   |
|                          |                        |   |                      |                      | Gypsum<br>Perlite<br>Mica<br>Carbonates<br>Binder/Filler 99%  |
| 0035882-083<br>B-130-083 | NW CORNER ROF<br>ROOF  | LAYER 1<br>Rolled Roofing, White/ Black | No                   |                      | Fibrous Glass 15%   |
|                          |                        |   |                      |                      | Gypsum<br>Quartz<br>Binder/Filler 85%                         |
|                          |                        | LAYER 2<br>Plaster, Off White           | No                   |                      | Gypsum<br>Perlite<br>Mica<br>Carbonates<br>Binder/Filler 100% |
|                          |                        |   |                      |                      |   |
| 0035882-084<br>B-130-084 | WEST CORNER<br>OF ROOF | LAYER 1<br>Rolled Roofing, White/ Black | No                   |                      | Fibrous Glass 15%   |
|                          |                        |   |                      |                      | Gypsum<br>Carbonates<br>Binder/Filler 85%                     |
|                          |                        | LAYER 2<br>Plaster, Off White           | No                   |                      | Cellulose Fiber <1%   |
|                          |                        |   |                      |                      | Gypsum<br>Perlite<br>Mica<br>Carbonates<br>Binder/Filler 99%  |



# EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044  
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report

0035882

## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location                         | Layer Name /<br>Sample Description            | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents                                  |
|--------------------------|--|---|----------------------|----------------------|---|
| 0035882-085<br>B-130-085 |  | LAYER 1<br>Rolled Roofing, White/ Black       | No                   |                      | Fibrous Glass 15%<br>Gypsum<br>Quartz<br>Binder/Filler 85%    |
|                          |  | LAYER 2<br>Plaster, Off White                 | No                   |                      | Gypsum<br>Perlite<br>Mica<br>Carbonates<br>Binder/Filler 100% |
| 0035882-086<br>B-130-086 | ON EXTERIOR<br>WALLS OF BLDG<br>(PLANTERS) | Waterproofing, Gray/ Black                    | Yes                  | Chrysotile 15%       | Fibrous Glass 15%<br>Gypsum<br>Binder/Filler 70%              |
| 0035882-087<br>B-130-087 | ON EXTERIOR<br>WALLS OF BLDG<br>(PLANTERS) | Note: *Not analyzed per client<br>request     |                      |                      |   |
| 0035882-088<br>B-130-088 | ON EXTERIOR<br>WALLS OF BLDG<br>(PLANTERS) | Note: *Not analyzed per client<br>request     |                      |                      |   |
| 0035882-089<br>B-130-089 | BETWEEN<br>STAND UP WALLS                  | Exterior Wall Expansion Joint Putty,<br>Brown | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Quartz<br>Binder/Filler 99%  |
| 0035882-090<br>B-130-090 | BETWEEN<br>STAND UP WALLS                  | Exterior Wall Expansion Joint Putty,<br>Brown | No                   |                      | Cellulose Fiber <1%<br>Gypsum<br>Quartz<br>Binder/Filler 99%  |

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Laboratory Report

0035882

## Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location                | Layer Name /<br>Sample Description               | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents  |
|--------------------------|-----------------------------------|--|----------------------|----------------------|---|
| 0035882-091<br>B-130-091 | BETWEEN EXT.<br>WALL SECTIONS     | Exterior Wall Expansion Joint Putty,<br>Brown    | No                   |                      | Cellulose Fiber <1%<br><br>Gypsum<br>Quartz<br>Binder/Filler 99%          |
| 0035882-092<br>B-130-092 | WEST WALL<br>MECH RM              | LAYER 1<br>Fiberglass Batting Insulation, Yellow | No                   |                      | Fibrous Glass 95%<br><br>Binder/Filler 5%                                 |
|                          |                                   | LAYER 2<br>Batt Insulation Cover, Green/ White   | No                   |                      | Fibrous Glass 90%<br>Carbonates<br>Binder/Filler 10%                      |
| 0035882-093<br>B-130-093 | NORTH WALL<br>MECH RM             | LAYER 1<br>Fiberglass Batting Insulation, Yellow | No                   |                      | Fibrous Glass 95%<br><br>Binder/Filler 5%                                 |
|                          |                                   | LAYER 2<br>Batt Insulation Cover, Green/ White   | No                   |                      | Fibrous Glass 90%<br>Carbonates<br>Binder/Filler 10%                      |
| 0035882-094<br>B-130-094 | OUVERHEAD SW<br>CORNER MECH<br>RM | LAYER 1<br>Elbow Insulation, Yellow              | No                   |                      | Fibrous Glass 95%<br><br>Binder/Filler 5%                                 |
|                          |                                   | LAYER 2<br>Wrap/ Coating, Yellow/ White          | Yes                  | Chrysotile 10%       | Fibrous Glass 20%<br>Talc 5%<br>Gypsum<br>Carbonates<br>Binder/Filler 65% |

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Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report

0035882

## Bulk Asbestos Analysis by Polarized Light Microscopy


NVLAP#101926-0

|               |                               |                |                   |
|---------------|-------------------------------|----------------|-------------------|
| Client:       | ENVIRONMENTAL CONSULTING SVCS | Job# / P.O. #: | 50825130          |
| Address:      | 5718 WESTHEIMER RD, STE 1575  | Date Received: | 09/14/2005        |
|               | HOUSTON TX 77057              | Date Analyzed: | 09/16/2005        |
| Collected:    | 09/09/2005                    | Date Reported: | 09/16/2005        |
| Project Name/ | HFD 333 PRESTON               | EPA Method:    | EPA 600/M4-82-020 |
| Address:      |                               | Submitted By:  | SAM BARBAR        |
|               |                               | Collected By:  | Customer          |

| Lab ID<br>Client ID      | Sample<br>Location                | Layer Name /<br>Sample Description  | Asbestos<br>Detected | Asbestos Type<br>(%) | Non-Asbestos<br>Constituents   |
|--------------------------|-----------------------------------|---|----------------------|----------------------|--|
| 0035882-095<br>B-130-095 | OUVERHEAD SW<br>CORNER MECH<br>RM | LAYER 1<br>Elbow Insulation, Yellow   | No                   |                      | Fibrous Glass 95%  |
|                          |                                   |   |                      |                      | Binder/Filler 5%   |
|                          |                                   | LAYER 2<br>Elbow Insulation, Off White  | Yes                  | Chrysotile 60%       | Carbonates<br>Mica<br>Binder/Filler 40%                                  |
|                          |                                   | LAYER 3<br>Wrap/ Coating, Yellow/ White<br>Note: Difficult to separate adjacent<br>layers | Yes                  | Chrysotile 3%        | Fibrous Glass 20%<br>Gypsum<br>Carbonates<br>Quartz<br>Binder/Filler 77% |
| 0035882-096<br>B-130-096 | ON CEILING<br>MECH RM             | Ceiling Blanket, Yellow   | No                   |                      | Fibrous Glass 100%   |
| 0035882-097<br>B-130-097 | ON CEILING<br>MECH RM             | Ceiling Blanket, Yellow   | No                   |                      | Fibrous Glass 100%   |



Analyst - Paul Hofer



Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in weight percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately <1% by weight. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by any entity to claim product endorsement by NVLAP or any agency of the U.S. Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

## CHAIN OF CUSTODY

EMC Laboratories  
9830 S. 51<sup>ST</sup> St., Ste B-109  
Phoenix, AZ 85044  
(800) 362-3373 Fax (480) 893-1726

LAB#: 35882  
TAT: 2 days  
Rec'd: SEP 14 P.M.

COMPANY NAME: Environmental Consulting Services  
5718 Westheimer Road #Ste 1575  
Houston, TX 77056  
CONTACT: Sam Barbar/Sherry  
Phone/Fax: (713) 622-4800/ (713) 622-4828  
Email: info@ecsus.com / sam.barbar@ecsus.com/  
jennifer.boone@ecsus.com

BILL TO: (If Different Location)

E-MAILED

Now Accepting: VISA - MASTERCARD

Price Quoted: \$ / Sample \$ / L

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]

\*\*\*\*Prior confirmation of turnaround time is required

\*\*\*\*Additional charges for rush analysis (please call marketing department for pricing details)

\*\*\*\*Laboratory analysis may be subject to delay if credit terms are not met

2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, T]

3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]

(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. Project Name: HFD 333 Preston

P.O. Number:

Project Number: 50825130

| EMC<br>SAMPLE<br># | CLIENT<br>SAMPLE # | DATE & TIME<br>SAMPLED | LOCATION/MATERIAL<br>TYPE | Samples<br>Accepted |    | AIR SAMPLE INFO / COMMENTS |     |           |
|--------------------|--------------------|------------------------|---------------------------|---------------------|----|----------------------------|-----|-----------|
|                    |                    |                        |                           | Yes                 | No | ON                         | OFF | FLC<br>RA |
| 1                  | B-130-01           | 9-9-05                 | see attached data sheets  | Y                   | N  |                            |     |           |
| ↓                  | thru               |                        |                           | Y                   | N  |                            |     |           |
| 97                 | B-130-97           |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |
|                    |                    |                        |                           | Y                   | N  |                            |     |           |

SPECIAL INSTRUCTIONS: 1<sup>st</sup> Positive Stop-ALL If <10% - please Point Count all Friable Samples in

Sample Collector: (Print) Dan Striber (Signature) Diana Federico Each Homogeneous Area

Relinquished by: Diana Federico Date/Time: 9-13-05 5:00 pm Received by: Diana Federico Date/Time: 9/14/05

Relinquished by: Diana Federico Date/Time: 9/14/05 1540 Received by: [Signature] Date/Time: 9-15-05

Relinquished by: Date/Time: Received by: Date/Time:

\*\* In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue w





**APPENDIX C**  
**LICENSES AND CERTIFICATIONS**

# DEPARTMENT OF STATE HEALTH SERVICES

BE IT KNOWN THAT

ENVIRONMENTAL CONSULTING SERVICES, INC

is licensed and authorized to perform as an

Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

100179

License Number

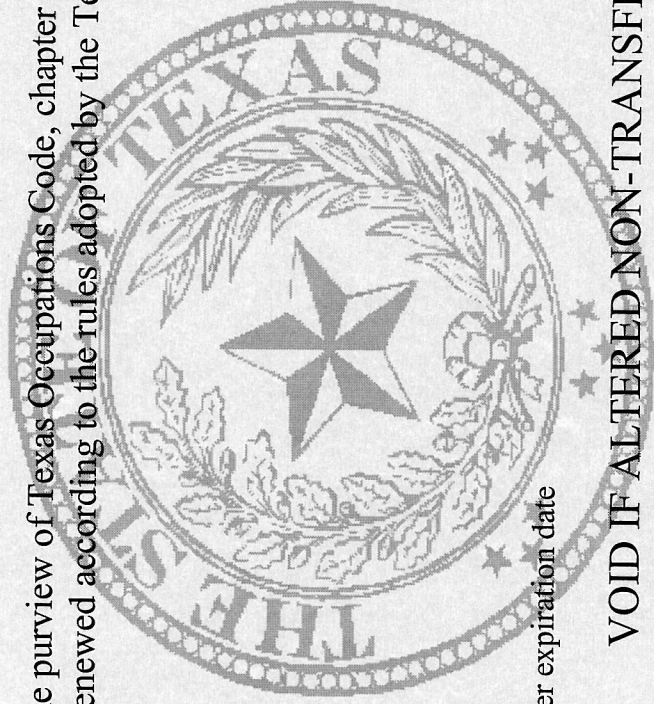
5/27/2005

Issue Date

5/26/2006

Expiration Date

This certificate is void after expiration date



*Todd F. Wingler*

Todd F. Wingler, P.E.  
Chief, Asbestos Programs Branch  
Toxic Substances Control Division

*Eduardo J. Sanchez*

Eduardo J. Sanchez, M.D., M.P.H.  
Commissioner of Health

VOID IF ALTERED NON-TRANSFERABLE

85831





Control No:  
84230

Department of State Health Services certifies that:

**DANIEL SRUBAR**

is licensed as an:

**Asbestos Project Manager**



License Number: 500738

From: 02/26/2005

To: 02/25/2007



Control No:  
84212

Department of State Health Services certifies that:

**DANIEL SRUBAR**

is licensed as an:

**Asbestos Inspector**



License Number: 601157

From: 03/06/2005

To: 03/05/2006



Control No:  
87407

Department of State Health Services certifies that:

**DANIEL SRUBAR**

is licensed as an:

**Asbestos Air Monitoring Technician**



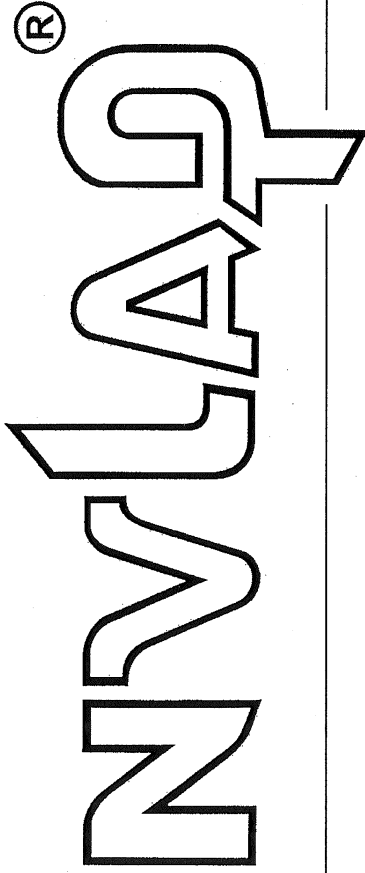
License Number: 700262

From: 07/01/2005

To: 06/30/2007



United States Department of Commerce  
National Institute of Standards and Technology



## Certificate of Accreditation to ISO/IEC 17025:1999

NVLAP LAB CODE: 101926-0

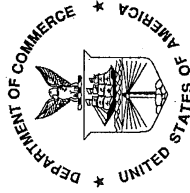
**EMC Labs, Inc.**  
Phoenix, AZ

is recognized by the National Voluntary Laboratory Accreditation Program for conformance with criteria set forth in  
NIST Handbook 150:2001 and all requirements of ISO/IEC Guide 17025:1999.  
Accreditation is granted for specific services, listed on the Scope of Accreditation, for:

### BULK ASBESTOS FIBER ANALYSIS

2005-07-01 through 2006-06-30

Effective dates



A handwritten signature in black ink, appearing to read "James P. Walsh".

For the National Institute of Standards and Technology



**National Voluntary  
Laboratory Accreditation Program**



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:1999**

**EMC Labs, Inc.**

9830 S. 51st St. Suite B-109

Phoenix, AZ 85044-5677

Mr. Kurt A. Kettler

Phone: 480-940-5294 Fax: 480-893-1726

E-Mail: [kkettler@earthlink.net](mailto:kkettler@earthlink.net)

URL: <http://www.emclabs.com>

**BULK ASBESTOS FIBER ANALYSIS (PLM)**

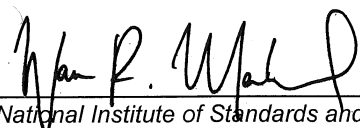
**NVLAP LAB CODE 101926-0**

***NVLAP Code    Designation / Description***

|        |  |
|--------|--|
| 18/A01 | EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples |
|--------|--|

2005-07-01 through 2006-06-30

*Effective dates*

  
For the National Institute of Standards and Technology

**APPENDIX D**  
**SURVEY CHECKLISTS**

---

**CHECK LIST FOR ASBESTOS SURVEYS**

NAME OF THE FACILITY: **Fire Alarm Building**

FACILITY ADDRESS: **333 Preston, Houston, Texas**

DATE OF THE SURVEY: **09/12-13/2005**      CONSULTANT: **ECS**

INSPECTOR (S) NAME: **Daniel Srubar**

Note: Items/information listed below must be included in the report. Use this checklist to ensure completeness of your report. Mark "X" or "check" in front of the information included in the report. Submit completed check list with the report. If a facility is surveyed for asbestos and lead, the survey reports shall be segregated in one binder or preferably two separate reports.

1.   X        Date and Contract number of the survey.
2.   X        Scope of work.
3.   X        Copy of the inspectors TDH license.
4.   X        Name and Address of the building.
5.   X        Statement...if building records were used in the inspection and if not, why?
6.  N/A       Date of construction and last renovation (if any) of the building.
7.   X        Cover letter (in report) contain executive summary or executive summary begin the report format.
8.   X        List of areas that were not inspected. Explain.
9.   X        Procedures and protocols used to collect bulk samples.
10.  N/A       List of measures taken to prevent potential fiber release form locations where samples were extracted
11.   X        Drawings and photographs with sample locations marked to facilitate future location of materials sampled.
12.   X        Statement...if an accredited (NVLAP) laboratory was used for Sample Analysis.
13.   X        Copy of the laboratory accreditation certificate.

- 
14.  X  Copy of the laboratory analysis results of the bulk samples.
15.  X  Statement (by the laboratory) regarding Quality Assurance and Quality Control performed.
16.  X  Copy of the chain of custody form for the bulk samples.
17.  X  List of materials assumed to be containing asbestos.
18.  X  City of Houston Asbestos Hazard Categorization (AHC) list and categorization of all the samples according to the AHC list included in the report.
19.  X  Condition of the building structure such as deterioration, structural problems, or other damages.

If Asbestos Present:

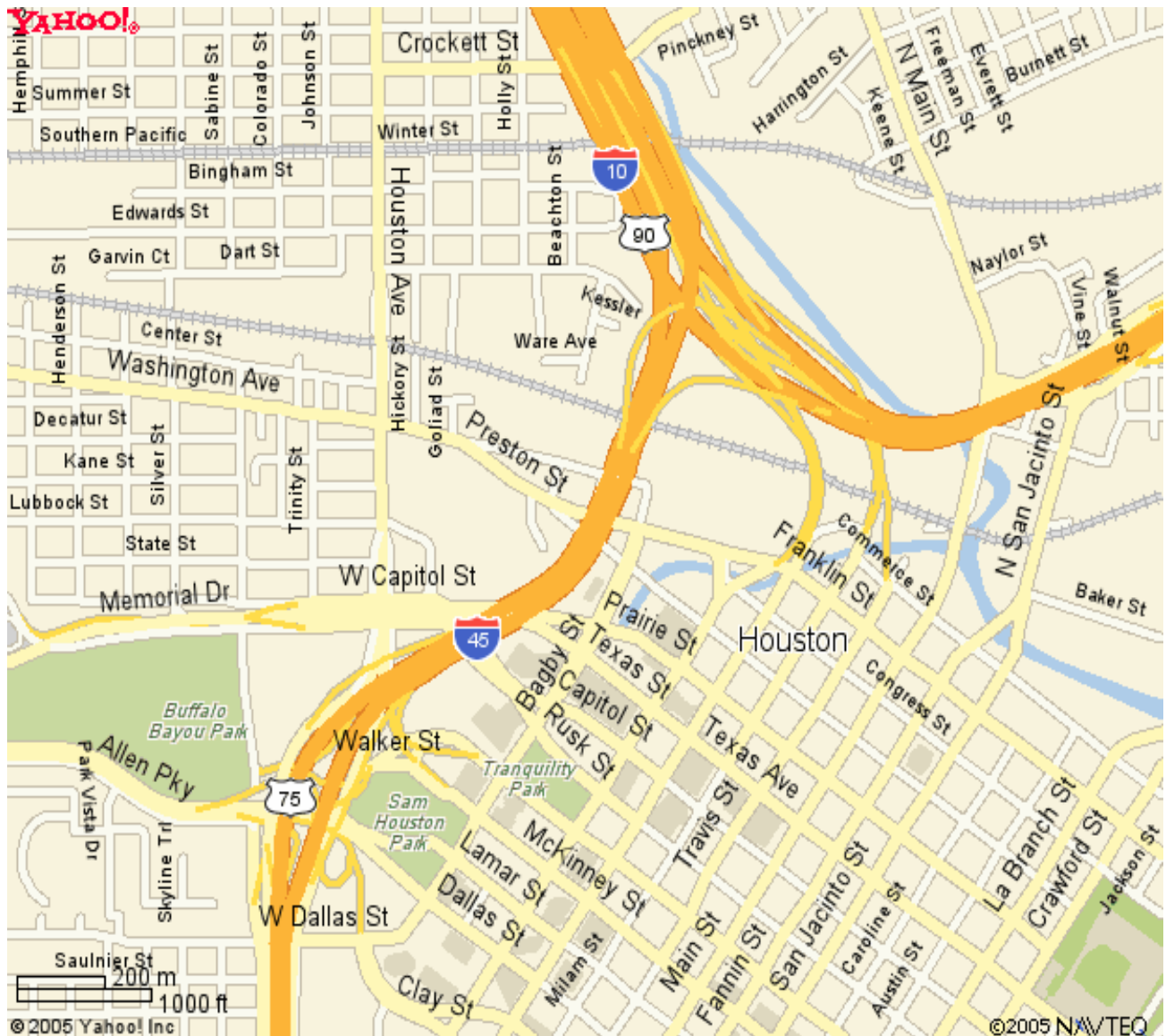
20.  N/A  Statement...if repeat analysis using point counting PLM was done as required by the city for the samples that show less than 5% asbestos.
21.  N/A  Photographs of all Materials proven to be ACM are included.
22.  N/A  All asbestos containing materials are classified as Friable or Non-Friable.
23.  N/A  Recommendations are made for all Asbestos Containing Materials.
24.  X  Reasonably accurate quantities of ACM's are estimated and given in the report.
25.  N/A  Cost estimations are given for abatement.
26.  N/A  Operation and Maintenance Plans are recommended.

Signed: \_\_\_\_\_

**Name: Jennifer L. Boone**

**Title: Asbestos Consultant**

**APPENDIX E**  
**FACILITY LOCATION MAP**



**APPENDIX F**  
**LABORATORY STATEMENT REGARDING QUALITY ASSURANCE**  
**AND**  
**QUALITY CONTROL PERFORMED**



## **6. QUALITY CONTROL**

### **PLM LABORATORY**

#### **6.1 Contamination Control**

- A. Refractive Index oils will be checked for contamination and effectiveness when the seal is broken using the Dispersion Staining Method Cargille Laboratories Refractive Index Calibration glass beads. The Dispersion Staining Technique as described at the end of this manual in section A.4- A STANDARD OPERATION PROCEDURE FOR BULK ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY by Shu-Chun Su, Ph.D., can be used with the Cargille Reference Sets M-7, M-18, and M-25 to measure the refractive index of liquids of unknown refractive index. These sets contain solids of precisely known refractive indices. The solids are in the form of 100 mesh grains, ideal for Becke Line determination, and come with a table of "Precise Optical Values" (CARGILLE M-7 REFERENCE SET PRECISE OPTICAL VALUES). With practice, the method can measure the refractive index of liquids to better than  $\pm .003$  and usually better than  $\pm .001$ , even though the intervals between the solid standards are normally  $\pm .01$ . *Analytical results are corrected for the current room temperature by comparing the current room temperature to the temperature that the oil was originally calibrated at, and then determining the difference.* All refractive index oils are originally calibrated by Cargille Labs at  $25^{\circ}\text{C}$  ( $77^{\circ}\text{F}$ ). If the difference between the actual EMC Laboratory temperature is  $2^{\circ}\text{Fahrenheit}$  or less ( $75^{\circ}\text{F} - 79^{\circ}\text{F}$ ) the difference does not change the value of the refractive index of the oil, even after applying the temperature correction factor. Laboratory temperature measurements are performed using a NIST Traceable Pyrometer. If the difference is greater than  $2^{\circ}\text{F}$ , corrections are made to refractive index determination by subtracting the difference if the temperature is greater, or adding the difference if the temperature is less than  $77^{\circ}\text{F}$ . The difference in temperature is multiplied by the corresponding correction factor that is indicated on each respective refractive index oil label, and then applied positively or negatively depending upon the departure in temperature. The index is then recorded into the R.I. Oil Check Log Book. Refractive Index oils will then be rechecked using the same procedure weekly when the same bottle is in use. The vendor, lot number and expiration date of the refractive index fluid must also be recorded. A bottle will be checked at an earlier time if an analyst notices suspect results and/or color or odor changes in the oil. If oils are shown to be rendering questionable results, they are taken out of service, marked contaminated and disposed of properly. *Tests and calibrations shall be stopped when the environmental conditions jeopardize the results of the tests.*
- B. Every group of 19 samples will have an equipment blank test performed prior to the analysis to ensure non-contaminated equipment and reagents. The blank consists of 100% fiberglass mounted in two refractive index oils. This is recorded in the equipment blank log and documentation must contain the following: Lab number, first sample number of the following 19 samples, analyst initials, results of the test. If contamination is detected, a process of elimination will be performed to ascertain the source. Each separate component will be checked and verified as clean and correct until the source is found. When the contamination source is identified, it is corrected and documented before analysis may continue.
- C. A preparation area blank test is performed monthly and the results are recorded in an equipment blank log. A known negative sample (such as 100% perlite) is introduced into work load and analyzed. If contamination is indicated,

the same process of isolating and eradicating the source of contamination takes place.

D. Cover slips, glass slides, liquids, utensils and microscopes are checked and wet wiped daily before and after each use. Laboratory preparation and Analysis areas are wet wiped at the end of the work day, each Friday. All surface areas are kept dust free by wet wipe every Friday, and sometimes sooner if necessary.

E. Microscope Calibration is performed daily, or when possible problems are suspected. Servicing by a contracted microscope servicing company is performed annually or as needed.

Each day a microscope is used, a microscopist aligns the PLM in such a way that:

- the substage polarizer and analyzer are oriented at 90 degrees to one another. The orientations of the privileged directions of the polarizers must be known. The accessory slot is at 45 degrees to the privileged directions;
- the ocular crosshairs coincide with the privileged directions of the polarizer and the analyzer and this is verified with a uniaxial interference figure test slide;
- the objectives and/or stage are centered to prevent any particles from leaving the field of view during stage rotation;
- the condenser and iris diaphragm are centered on the optic axis.

F. **Absolutely no** smoking, eating or drinking will be allowed in the laboratory.

## 6.2 PLM Preparation Laboratory Procedure:

A. The PLM preparation area is segregated from all other areas. The prep area must be removed from traffic areas and personnel allowed in only while preparation is on-going.

B. The HEPA filtration unit must be on at all times during preparation work. All preparation work must be performed in the hood.

C. All utensils must be thoroughly cleaned after each sample is prepped by wet wiping.

D. Sample prep area is wet wiped between each sample preparation. When available, disposable sample containers will be used. After stereoscopic examination the sample is returned to its container. More detailed procedures are contained in Section 9.1 of this manual.

E. All disposable materials coming in contact with samples will be considered contaminated waste (knife blades, paper towels, sample containers, etc.). These items will be disposed of by placing them in a 6 mil. plastic bag with proper markings. The sack must be properly closed at the end of each work day,

and removed to the proper regulated disposal area by qualified waste transporters.

### 6.3 PLM Quality Control and Data Generation

#### A. Duplicate/Replicate Analysis

All PLM analysis must undergo 10% reanalysis using the third party systems to insure "blind" testing. This QC check must be performed to verify analysis before final reports are issued. *All samples that are determined to contain 2% or less of asbestos are verified after 10% random Quality Control analysis is performed.*

The reanalysis of 10% of production is a test for precision. At a minimum, one sample is randomly selected from ten to be reanalyzed. This measures the accuracy of random analysis among individual analysts. This is facilitated by submitting a previously analyzed sample to another analyst for reanalysis and comparing results for consistency. Upper and lower control limits are set at  $\pm 3$  standard deviations and upper and lower warning limits are set at  $\pm 2$  standard deviations for quality control. *These results are graphed and used for Control Charts for Precision. The charts help to detect trends, if any for each analyst and the laboratory.*

Analyses determined out of range is reanalyzed by a third party. The original reanalysis is issued unless disputed by third party.

Quality System reviews and testing deficiency corrective actions are recorded directly on our EMC Duplicate/Replicate Analysis Quality Control form under "Action Taken". This is also noted in the personnel record and in monthly QA/QC reports.

#### B. Blind Testing

Blind testing is performed using a designated third party to coordinate and compile test results so as to prevent analyst bias. Bi-weekly a "blind" sample is entered into the work load as a routine work sample. Blind samples are prepared and submitted by the QC coordinator under the supervision of the Quality Assurance coordinator. The data from the blind tests are used to determine "r" values for each analyst. This is a test for precision. Samples in ranges from 0-5, 5-20, and 20-100 percent of asbestos by weight are used for this purpose. Control charts are generated for the "r" values to measure proficiency

#### C. Audit and Review

The laboratory arranges for yearly audits of its activities at appropriate intervals to verify that our operations continue to comply with the requirements of the quality system. Such audits are carried out by trained and qualified staff who are, wherever possible, independent of the activity to be audited. When the audit findings cast doubt on the validity of the laboratory's test results, the laboratory shall immediately notify, in writing, any client whose work may have been affected. The

audits are objective and are conducted internally or by contract. The audits shall include both general criteria (documents, records, and policies) and technical compliance. Follow up audit activities verify and record implementation and effectiveness of the corrective action taken.

#### D. "Difficult" Sample Analyses

Semi- or Non-friable materials are very difficult to prepare and analyze including floor tiles and roofing materials. In section 2.3 of EPA Method EPA/600/R-93/116, there are some very useful methods for dealing with these types of samples, as well as fibers that are heavily coated with matrix material. Tiles and roofing may be ashed or treated with solvents. When preparing a semi- or non-friable samples (i.e. a floor tile), the material may be shaved, or may be heated slightly to permit a forcep sample extraction from a freshly broken side. The tile is then mounted in the R.I. Oil and a cover slip is placed over it. A pencil eraser works quite well at breaking down and dispersing the particles. Heavily coated fibers may be acid washed, rinsed, dried and then prepared. Again a pencil eraser works very well at dispersing the sample. Analysts strive to find more effective and appropriate ways of preparing these types of samples every day. More extensive details may be found in section 2.3 of the method referenced above.

### 6.4 Data Review and Validation

Upon completion of quality control, sample analyses are submitted for report generation. Following report generation, reports are cross-checked with data entered into computer system. If information is correct, results are issued to the client via fax or mail. If information is incorrect, the error is corrected and the source determined, and cause analysis performed prior to issuing results to the client.

### 6.5 Record Retention

All records obtained and generated are retained a minimum of five years from the date of generation and or receipt. EMC Labs, Inc. retains all records of original observations, analytical and derived data along with sufficient information to establish an audit trail, calibration records, staff records and a copy of each test report a minimum of five years. All retained records contain sufficient information to facilitate the identification of factors affecting the uncertainty of test results. All records include the identity of personnel responsible for the data generation and analytical results. All observations, data and calculations are recorded at the time they are made and the results are easily identifiable. Documents greater than five years old are approved for destruction by mechanical means. Observations, data and calculations are recorded at the time they are made and are identifiable to a specific task.

## 6.6 Document Control

A. All documents issued to personnel at EMC Labs, Inc. as part of the quality system are approved by authorized personnel such as the technical manager or the laboratory director prior to issue. All records shall be legible and are stored and retained in a way that they are readily retrievable as well as maintained in a suitable environment to prevent damage, deterioration, or loss. All records shall be held in strict confidence and secured by electronic backup and or by implementing fire preventive measures. Data generated is electronically backed up by redundant server hard drives, as well as daily server backups to a server storage appliance stand-alone from the network server, and to CD ROM. CD ROM backups of all data generated are also stored in secure fire-proof containers off-site daily and weekly. All data generated is kept in password protected file folders with only authorized personnel allowed access. Any amendment to any record generates an audit trail within the LIMS (laboratory information management system), and can be performed only by the laboratory director or deputy technical manager. *LIM System used is developed by Genesis Microsystems. Computers and automated equipment are maintained to ensure proper functioning and are provided with the environmental and operating conditions necessary to maintain the integrity of the test data.*

B. All quality and technical records generated by EMC Labs, Inc. quality system are now assigned a date of generation (referred to on documentation as “gd” – i.e “gd021703”), a unique laboratory identification number, or reference number. Control Charts and statistical analyses will be referred to by the title assigned to it. All duplicate/replicate quality control data will be referred to by the unique laboratory identification of the samples that underwent quality control analysis. The date of issue (or “gd”) and/or revision identification, page numbering, and the total number of pages or a mark to signify the end of the document and the name and/or initials of the issuing authority is present on all quality system documents.

### C. Document Approval and Issue

All documents issued to lab personnel in the laboratory as part of the quality system are reviewed and approved by the laboratory director or deputy technical manager prior to issue. A master list identifying the current revision status or title referencing the publication date as well as the distribution status of documents in the quality system is maintained and readily available to all lab personnel to prevent the use of outdated or invalid documents. Only authorized editions of appropriate documents are available at all areas where it is essential to the effective functioning of the laboratory. Documents are periodically reviewed, at least annually and where necessary revised to ensure continuing compliance with applicable requirements. Invalid or obsolete documents are promptly removed from designated locations to assure against unintended use. Obsolete documents retained for either legal or knowledge preservation purposes are clearly marked as such.

*The most current documents used by EMC Labs, Inc. PLM Lab are as follows:*

*EPA Interim Method 600/M4-82-020 (copies available)*

*EPA Method EPA/600/R-93/116 (copies available)*

*EMC Stereoscopic Analysis Procedures (Contained in Section 9 of this Manual)*

*EMC Polarized Light Microscope Analysis Procedures (Contained in Section 9 of this Manual)*

D. Document Changes

Changes to documents are reviewed and approved by the same function that performed the original review unless specifically designated otherwise. When possible, altered or new text is identified in the document or accompanying attachments.

Material amendments to a test report after issue is made only in the form of a further document, or data transfer which includes the statement:

“ Supplement to the Test Report for EMC Lab #0000000.”

Such amendments must meet the requirements set forth in NIST Handbook 150. When it is necessary to issue a complete new test report, it is uniquely identified and contains a reference to the original that it replaces.

EMC Labs, Inc. documentation control system allows for the amendment of documents by hand pending the re-issue of documents by the following procedure:

- Any change is crossed out and initialed and dated by the person performing the change. A revised document is formally reissued as soon as possible.
- All computerized documentation changes are archived in their original form, and the corrected version is archived as well under a unique identification different than the original version. Any change in computerized documentation is allowed and performed by the laboratory director or deputy technical manager.

6.7 Review of Requests, Tenders, and Contracts

All Requests, Tenders, and Contracts are reviewed by management personnel prior to acceptance and must meet the following criteria:

- A. All requirements of any request, tender or contract including the methods requested to be used are adequately defined, documented and understood.
- B. The laboratory ensures the capability and resources to meet the request
- C. The appropriate test method is used selected and the laboratory is capable of meeting the clients' requirements.

- D. Any differences between the request or tender and the contract is resolved prior to commencement of work. Each contract shall be acceptable both to the laboratory and the client.
- E. A contract may be any written or oral agreement to provide a client with testing services.
- F. Records of reviews, including any significant changes are maintained. Records are also maintained of pertinent discussions with a client in the "Client Communication Record" relating to the client's requirements or the results of the work during the period of execution of the contract. For review of routine and other simple tasks, the date and the identification (or initials) of the person in the laboratory responsible for carrying out the contracted work is considered accurate. For repetitive routine tasks, the review need be made only at the initial inquiry stage or on granting of the contract for ongoing routine work performed under a general agreement with the client, provided that the client's requirements remain unchanged. For new, complex or advanced testing a more comprehensive record is maintained.
- G. The client is informed of any deviation from the contract, and if the contract needs to be amended after work has commenced, the same contract review process is repeated and any amendments are communicated to the affected personnel.
- H. The request, tender and contract review is conducted in a practical and efficient manner, and the effect of financial, legal and time schedule aspects are taken into account. The review of capability must establish that EMC Labs, Inc. possesses the necessary physical, personnel and information resources and that the lab's personnel have the skills and expertise necessary to perform the tests in question. *The review must also cover any work that is subcontracted by EMC Labs, Inc.*

## 6.8 Preventive Action

Preventive action is a proactive process to identify opportunities for improvement rather than a reaction to the identification of problems or complaints. Apart from the review of the operational procedures, the preventive action may involve the analysis of data including trend and risk analysis and statistical analysis of proficiency testing results.

The procedure for preventive action is as follows:

1. Needed improvements and potential sources of non-conformances, either technical or concerning the quality system is identified.
2. If preventive action is required, action plans are developed, implemented and monitored to reduce the likelihood of the occurrence of such non-conformances and to take advantage of the opportunities for improvement.
3. Action plans will include the initiation of preventive actions and ensure they are effective.

## 6.9 Proficiency Testing

All PLM analysts participate in the analysis of bi-annual NIST Rounds as well as bi-annual Round Robin exchanges with other participating laboratories. One single result is reported to NVLAP by EMC Labs, Inc., unless instructed by NVLAP otherwise. Procedures and calculations (if any) are documented as to how the one single result was determined. Analysts shall not have prior knowledge of the results of the samples if analysis is performed after the results have been submitted for each round of testing. Each analyst separately analyzes, records and reports the test results to the deputy technical manager or laboratory director. All proficiency testing results are compiled, charted and used as a measurement of accuracy and precision. The results are conveyed to each analyst to maintain consistency among analyses. Problems indicated by proficiency testing are discussed with the appropriate laboratory personnel and documented. Plans are developed and implemented for resolving problems and are documented. Proficiency Testing analyses are not contracted out to another laboratory. EMC Labs, Inc. keeps and utilizes proficiency testing materials for use as in-house instructional materials.



**APPENDIX G**  
**PREVIOUS ASBESTOS SURVEY PERFORMED MAY 30, 1989**

CITY OF HOUSTON  
FIRE ALARM BUILDING  
333 PRESTON  
HOUSTON, TEXAS  
  
ASBESTOS SURVEY

JUNE, 1989



Technology Serving People, Inc. • Occupational & Environmental Safety & Health

June 5, 1989

Mr. Bruce Petzold  
CITY OF HOUSTON  
Post Office Box 1562  
901 Bagby, Suite 3400  
Houston, Texas 77002

Re: Fire Alarm Building  
333 Preston  
Houston, Texas

Dear Mr. Petzold:

At your request, personnel from this office visited the above referenced facility to obtain bulk samples of material suspected to contain asbestos, estimate quantities, and to determine site issues relevant to asbestos.

Field survey and collection of bulk samples was accomplished May 27, 1989. Our inspection and sampling was inclusive of all materials suspected of containing asbestos including, but not limited to spray-applied fireproofing, spray-applied acoustical ceiling material, spray-applied sound proofing, water storage tank insulation, pipe and pipe fitting insulation, mechanical vibration dampers, acoustical tile panels, floor tiles, wall and ceiling plaster, exterior stucco, roofing materials and bituminous products.

Bulk samples were analyzed by our laboratory using Polarized Light Microscopy (PLM) with dispersion staining which is the method approved for bulk sampling by US EPA.

Thirty (30) samples of suspected material were collected, twelve of which identified asbestos-containing materials present. It should be noted that no destructive sampling was performed in areas that were inaccessible. The attachments document these findings. The estimated cost of removal is \$43,000.00

Page 2  
Mr. Bruce Petzold  
June 5, 1989

Please contact us with any questions related to the above or to this project. We are prepared to assist you in any regard you may deem necessary.

Sincerely,

A handwritten signature in dark ink, appearing to read "W.P. Wilson, Jr." with a stylized flourish at the end.

W. Paul Wilson, Jr., AIA  
Program Manager

WPW:dmf

Enclosure

## **TABLE OF CONTENTS**

**SAMPLE RESULTS**

**DRAWING**

**PHOTOGRAPHS**

## SAMPLE RESULTS

FIRE ALARM BUILDING  
333 PRESTON  
HOUSTON, TEXAS

| <u>SAMPLE<br/>I.D. NO.</u> | <u>BUILDING<br/>LOCATION</u>  | <u>TYPE OF<br/>MATERIAL</u>  | <u>QUANTITY OF<br/>MATERIAL</u> | <u>COMMENTS<br/>% ASBESTOS</u>      |
|----------------------------|-------------------------------|------------------------------|---------------------------------|-------------------------------------|
| FAB-DH-001                 | Mechanical Room               | Fiberglass Batt Covering     |                                 | None Detected                       |
| FAB-DH-002                 | Mechanical Room               | Elbow Insulation             |                                 | None Detected                       |
| FAB-DH-003                 | Mechanical Room               | Ceiling Blankets             |                                 | None Detected                       |
| FAB-DH-004                 | Mechanical Room               | Pipe Hanger Support Material |                                 | None Detected                       |
| FAB-DH-005                 | Mechanical Room               | Elbow Insulation             | 100 SF                          | 30-40% Chrysotile<br>10-15% Amosite |
| FAB-DH-006                 | 2nd Floor Computer Room Three | Pipe Fitting                 | 100 SF                          | 25-30% Amosite                      |
| FAB-DH-007                 | Computer Room Three           | Ceiling Tile                 |                                 | None Detected                       |
| FAB-DH-008                 | Dispatch Room                 | Ceiling Acoustical Panel     |                                 | None Detected                       |
| FAB-DH-009                 | Dispatch Room                 | Fitting Insulation Ceiling   | 100 SF                          | 60-75% Amosite                      |
| FAB-DH-010                 | Dispatchers Chief Office      | Drywall Mud                  |                                 | None Detected                       |
| FAB-DH-011                 | Emergency Light Disp. Office  | Dust Sample                  |                                 | None Detected                       |
| FAB-DH-012                 | Dispatchers Kitchen           | Floor Tile Mastic            | 4,000 SF thru-out building      | 1-5% Chrysotile<br>(Mastic & Tile)  |
| FAB-DH-013                 | Dispatchers Room              | Ceiling Tile                 |                                 | None Detected                       |
| FAB-DH-014                 | 1st Floor Elevator            | Ceiling Tile                 |                                 | None Detected                       |

FIRE ALARM BUILDING (Continued)  
333 PRESTON  
HOUSTON, TEXAS

| <u>SAMPLE<br/>I.D. NO.</u> | <u>BUILDING<br/>LOCATION</u>  | <u>TYPE OF<br/>MATERIAL</u>                | <u>QUANTITY OF<br/>MATERIAL</u>   | <u>COMMENTS<br/>% ASBESTOS</u> |
|----------------------------|-------------------------------|--|---|--------------------------------|
| FAB-DH-015                 | Chief<br>Sherrard's<br>Office | Ceiling Tile                               |   | None Detected                  |
| FAB-DH-016                 | John Pou's<br>Office          | Floor Tile                                 | See #12   | 1-5% Chrysotile<br>(Mastic)    |
| FAB-DH-017                 | 1st Floor<br>Frame Room       | Floor Tile                                 | See #12   | 1-5% Chrysotile<br>(Mastic)    |
| FAB-DH-018                 | Mens Room<br>2nd Floor        | Plaster<br>Ceiling                         |   | None Detected                  |
| FAB-DH-019                 | Front<br>Entrance             | Exterior<br>Plaster<br>Soffit              |   | None Detected                  |
| FAB-DH-020                 | Boiler Room                   | Elbow<br>Insulation<br>Hot Water<br>Heater |   | None Detected                  |
| FAB-DH-021                 | Generator<br>Room<br>Gen. #2  | Hot Water Line                             |   | None Detected                  |
| FAB-DH-022                 | Boiler Room<br>Boiler #2      | Stack<br>Insulation                        | 450 LF of<br>Insulation<br>throughout<br>Mechanical &<br>Generator Room | 60-65% Chrysotile              |
| FAB-DH-023                 | Boiler Room                   | Pipe Hanger<br>Support Mat'l.              | See #22   | 60-75% Chrysotile              |
| FAB-DH-024                 | Generator<br>Room<br>Gen. #1  | Exhaust Pipe<br>Insulation                 | See #22   | 50-55% Chrysotile              |
| FAB-DH-025                 | Generator<br>Room<br>Gen. #2  | Exhaust<br>Insulation                      |   | None Detected                  |
| FAB-DH-026                 | Generator<br>Room<br>Gen. #1  | Hot Water<br>Line                          | See #22   | 50-55% Amosite                 |



FIRE ALARM BUILDING (Continued)  
333 PRESTON  
HOUSTON, TEXAS

| <u>SAMPLE<br/>I.D. NO.</u> | <u>BUILDING<br/>LOCATION</u> | <u>TYPE OF<br/>MATERIAL</u>           | <u>QUANTITY OF<br/>MATERIAL</u> | <u>COMMENTS<br/>% ASBESTOS</u> |
|----------------------------|------------------------------|---------------------------------------|---------------------------------|--------------------------------|
| FAB-DH-027                 |                              | Roof                                  | Roofing Tar                     | None Detected                  |
| FAB-DH-028                 | Roof                         | Generator<br>Water Line<br>Insulation | See #22                         | 70-85% Amosite                 |
| FAB-DH-029                 | Roof                         | Exhaust Stack<br>Insulation           | See #22                         | 30-50% Chrysotile              |
| FAB-DH-030                 | Roof                         | Roof Flashing                         |                                 | None Detected                  |



Technology Serving People, Inc. • Occupational & Environmental Safety & Health

ASBESTOS LABORATORY CHAIN OF CUSTODY  
BULK SAMPLES

|                               |   |                     |
|-------------------------------|---|---------------------|
| Client <u>CITY OF HOUSTON</u> | Proj# <u>FIRE ALARM BLDG. 333 PRESTON</u> | Date <u>5-27-89</u> |
| TSP Rep. <u>DEL HAYES</u>     |   | Notes               |

| SAMPLE NUMBER | LOCATION/DISCRPTION                                    | LAB NUMBER |
|---------------|--|------------|
| FAB-DH-001    | FIBERGLASS BATT / MECH. RM.<br>COVERING                | HCP 180    |
| FAB-DH-002    | ELBOW INSUL / MECH. RM.                                | 181        |
| FAB-DH-003    | CEILING BLANKETS / MECH. RM.                           | 182        |
| FAB-DH-004    | PIPE HANGER SUPPORT MATL. / MECH. RM.                  | 183        |
| FAB-DH-005    | ELBOW INSUL. / MECH. RM.                               | 184        |
| FAB-DH-006    | PIPE FITTING / 2ND. FLOOR<br>INSUL. / COMPUTER RM. 3   | 185        |
| FAB-DH-007    | CEILING TILE / COMPUTER RM.<br># 3.                    | 186        |
| FAB-DH-008    | CEILING ACUSTICAL PANEL / DISPATCH<br>ROOM             | 187        |
| FAB-DH-009    | FITTING INSUL. / DISPATCH<br>CEILING ROOM              | 188        |
| FAB-DH-010    | DRYWALL / DISPATCHERS<br>MND CHIEF OFFICE              | 189        |
| FAB-DH-011    | DUST SAMPLE / EMERGENCY<br>LIGHT DISP. OFF.            | 190        |
| FAB-DH-012    | FLOOR TILE / DISPATCHERS<br>KITCHEN                    | 191        |
| FAB-DH-013    | CEILING TILE / DISPATCHERS<br>ROOM                     | 192        |
| FAB-DH-014    | CEILING TILE / 1ST FLOOR<br>1ST FLOOR ELEV. / ELEVATOR | 193        |
| FAB-DH-015    | CEILING TILE / CHIEF<br>SHERIFFS OFFICE                | 194        |
| FAB-DH-016    | FLOOR TILE / JOHN PCU'S<br>OFFICE                      | 195        |
| FAB-DH-017    | FLOOR TILE / 1ST. FLOOR<br>FRAME ROOM                  | 196        |

DATE RECEIVED

5/30/89

INITIALS

WCH

106 Westwood Drive  
Danville, Virginia 24541  
(804) 799-1103

P.O. Box 30037  
Pensacola, Florida 32503  
(904) 434-3955

5373 W. Alabama #450  
Houston, Texas 77056  
(713) 621-9067



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ASBESTOS LABORATORY CHAIN OF CUSTODY  
BULK SAMPLES

|                               |   |                     |
|-------------------------------|---|---------------------|
| Client <u>CITY OF HOUSTON</u> | Proj# <u>FIRE ALARM BLDG. 333 PRESTON</u> | Date <u>5-27-89</u> |
| TSP Rep. <u>DEL HAYES</u>     |   | Notes               |

| SAMPLE NUMBER | LOCATION/DISCRPTION                         | LAB NUMBER |
|---------------|---|------------|
| FAB-DH-018    | PLASTER / MECH RESTROOM CEILING 2ND FLOOR   | 197        |
| FAB-DH-019    | EXTERIOR PLASTER SOFFIT / FRONT ENTRANCE    | 198        |
| FAB-DH-020    | ELBOW INSUL / BOILER HOT WATER HEATER ROOM  | 199        |
| FAB-DH-021    | HOT WATER LINE / GENERATOR GEN. #2 ROOM     | 200        |
| FAB-DH-022    | STACK INSUL / BOILER #2 BOILER RM.          | 201        |
| FAB-DH-023    | PIPE HGL SUPPORT MATL / BOILER RM.          | 202        |
| FAB-DH-024    | EXHAUST PIPE / GEN. #1 INSUL / GENERATOR RM | 203        |
| FAB-DH-025    | EXHAUST INSUL / GEN #2 / GENERATOR RM       | 204        |
| FAB-DH-026    | HOT WATER LINE / GENERATOR GEN #1 ROOM      | 205        |
| FAB-DH-027    | ROOFING TAR / ROOF                          | 206        |
| FAB-DH-028    | GEN. WATER LINE INSUL / ROOF                | 207        |
| FAB-DH-029    | EXHAUST STACK / ROOF INSUL                  | 208        |
| FAB-DH-030    | ROOF FLASHING / ROOF                        | 209        |
|               |   |            |
|               |   |            |
|               |   |            |
|               |   |            |

DATE RECEIVED

5/30/89

INITIALS

WJH

106 Westwood Drive  
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Houston, Texas 77056  
(713) 621-9067



TECHNOLOGY SERVING PEOPLE, INC.  
BULK ASBESTOS LABORATORY RESULTS

|                                    |                          |
|------------------------------------|--------------------------|
| Requestor: <u>DEL HAYES</u>        | Log Date: <u>5/30/89</u> |
| Project: <u>COA/FIRE ALM BLDG.</u> | Analysis: <u>5/30/89</u> |

LAB ID      FIELD ID      %Chy      %Amo      %Cro      %Oth Asb.      \*Matrl & % ND

|         |           |              |        |  |  |                          |
|---------|-----------|--------------|--------|--|--|--------------------------|
| HCP 140 | FABDH-001 |              |        |  |  | ND FB-100%               |
| 141     | 2         |              |        |  |  | ND C-5%<br>MW-20%        |
| 142     | 3         |              |        |  |  | ND FB-100%               |
| 143     | 4         |              |        |  |  | ND ROCK                  |
| 144     | 5         | 30-40%       | 10-15% |  |  | C-50%<br>FB-20%          |
| 145     | 6         |              | 25-30% |  |  |                          |
| 146     | 7         |              |        |  |  | ND C-50%<br>FB-25%       |
| 147     | 8         |              |        |  |  | ND C-5%<br>FB-80%        |
| 148     | 9         |              | 60-75% |  |  | A-25%<br>BINDER          |
| 149     | 10        |              |        |  |  | C-2-5%<br>NDA/BINDER     |
| 190     | 11        |              |        |  |  | ND WETZ                  |
| 191     | 12        | 1-5%<br>1-5% |        |  |  | MASTIC (+)<br>T-100%-(+) |
| 192     | 13        |              |        |  |  | C-50%<br>FB-25%          |
| 193     | 14        |              |        |  |  | C-50%<br>FB-25%          |
| 194     | 15        |              |        |  |  | C-50%<br>FB-25%          |
| 195     | 16        | 1-5%         |        |  |  | MASTIC +<br>T-100% ND    |
| 196     | 17        | 1-5%         |        |  |  | MASTIC (+)<br>T-100% ND. |

ASBESTOS FORMS

CHY-CHRYSTOLE      ACT-ACTINOLITE  
AMO-AMOSITE      ANT-ANTHOPHYLLITE  
CRO-CROCIDOLITE      TRE-TREMOLITE

\* MATERIAL TYPES

T-TILE    A-ADHESIVE    TA-TAR  
B-BACKING    FB-FIBEROUS GLASS  
C-CELLULOSE    MW-MINERAL WOOL  
HP-HEATING FOR POLYETHYLENE

MICROSCOPIST: WELZ

TECHNOLOGY SERVING PEOPLE, INC.  
BULK ASBESTOS LABORATORY RESULTS

|                                   |                          |
|-----------------------------------|--------------------------|
| Requestor: <u>DEL HAYES</u>       | Log Date: <u>5/30/89</u> |
| Project: <u>COH/FIREALM.BLDG.</u> | Analysis: <u>5/30/89</u> |

LAB ID      FIELD ID      %Chy      %Amo      %Cro      %Oth Asb.      \*Matrl & % ND

|         |          |               |                       |  |  |                             |
|---------|----------|---------------|-----------------------|--|--|-----------------------------|
| HCP 197 | FABDH-18 |               |                       |  |  | ND PLASTER                  |
| 198     | - 19     |               |                       |  |  | ND PLASTER                  |
| 199     | - 20     |               |                       |  |  | MW 20% ND<br>FB-20%         |
| 200     | - 21     |               |                       |  |  | C-20-30%<br>ND SYN. FIBERS. |
| 201     | - 22     | 60-65%        |                       |  |  | C-5-10%                     |
| 202     | - 23     | 60-75%        |                       |  |  | C-5-10%                     |
| 203     | - 24     | 50-50%        |                       |  |  | C-5-10%                     |
| 204     | - 25     |               |                       |  |  | C-20%<br>ND FB/MW-60%       |
| 205     | - 26     | WEH<br>50-55% | 50-55%                |  |  | A-30%                       |
| 206     | - 27     |               | <del>70-85%</del> WEH |  |  | <del>A-10%</del> ND         |
| 207     | - 28     |               | 70-85% WEH            |  |  | ND A-10%                    |
| 208     | - 29     | 30-50%        |                       |  |  | MASTIC/TA<br>C-10-20%       |
| 209     | - 30     |               |                       |  |  | ND C-5%<br>TA-80-95%        |
|         |          |               |                       |  |  |                             |
|         |          |               |                       |  |  |                             |
|         |          |               |                       |  |  |                             |
|         |          |               |                       |  |  |                             |

WEH  
WEH

ASBESTOS FORMS

CHY-CHRYSTOLITE      ACT-ACTINOLITE  
AMO-AMOSITE      ANT-ANTHOPHYLLITE  
CRO-CROCIDOLITE      TRE-TREMOLITE

\* MATERIAL TYPES

T-TILE      A-ADHESIVE      TA-TAR  
B-BACKING      FB-FIBEROUS GLASS  
C-CELLULOSE      MW-MINERAL WOOL  
HP-HEATING FOR POLYETHYLENE

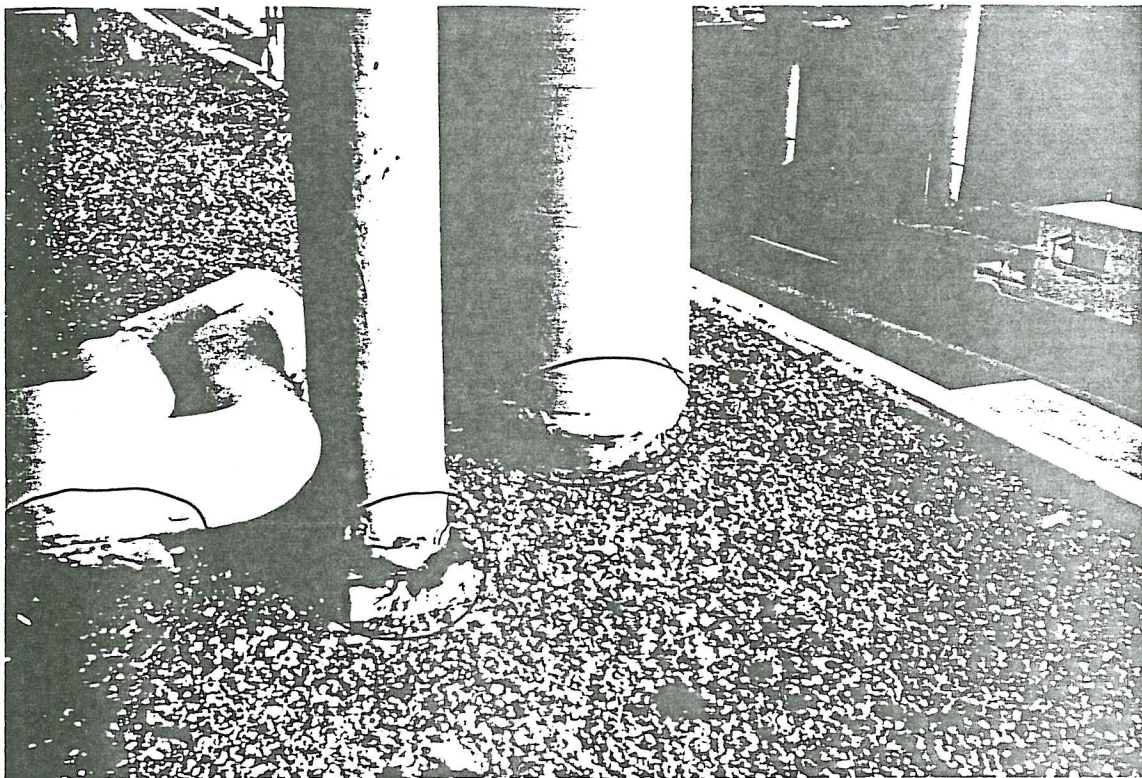
MICROSCOPIST: WEH

**PHOTOGRAPHS**

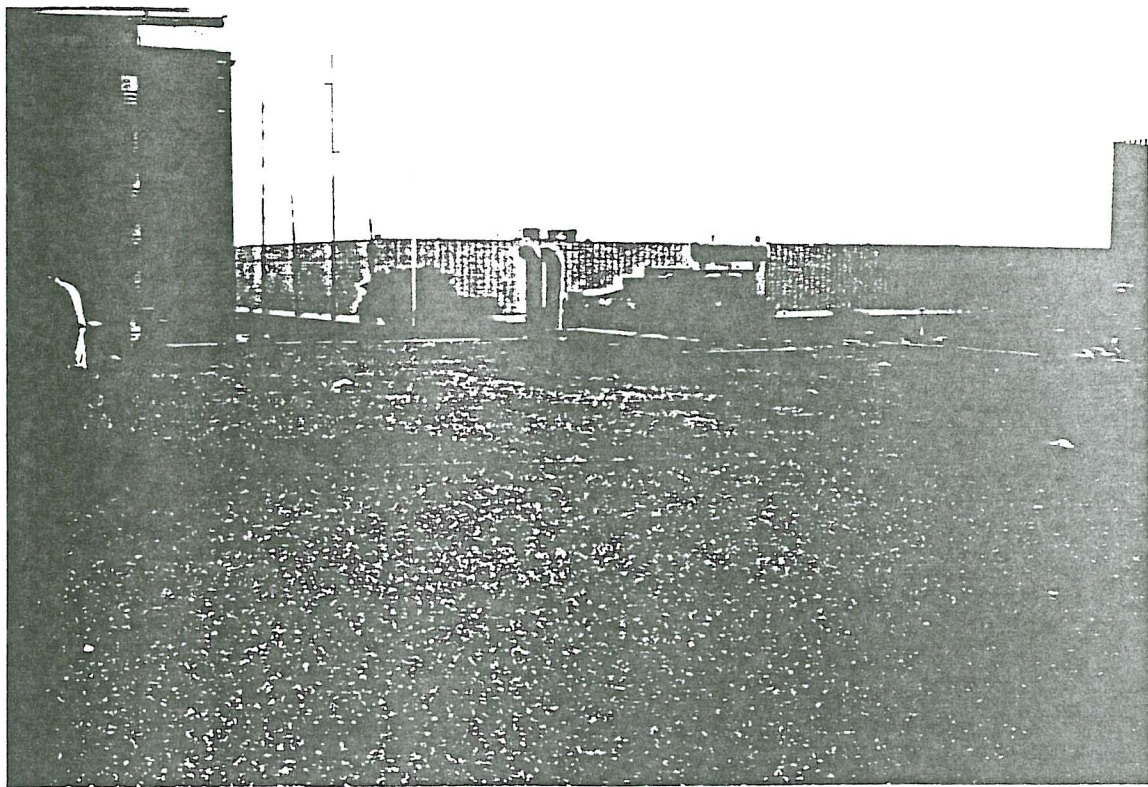






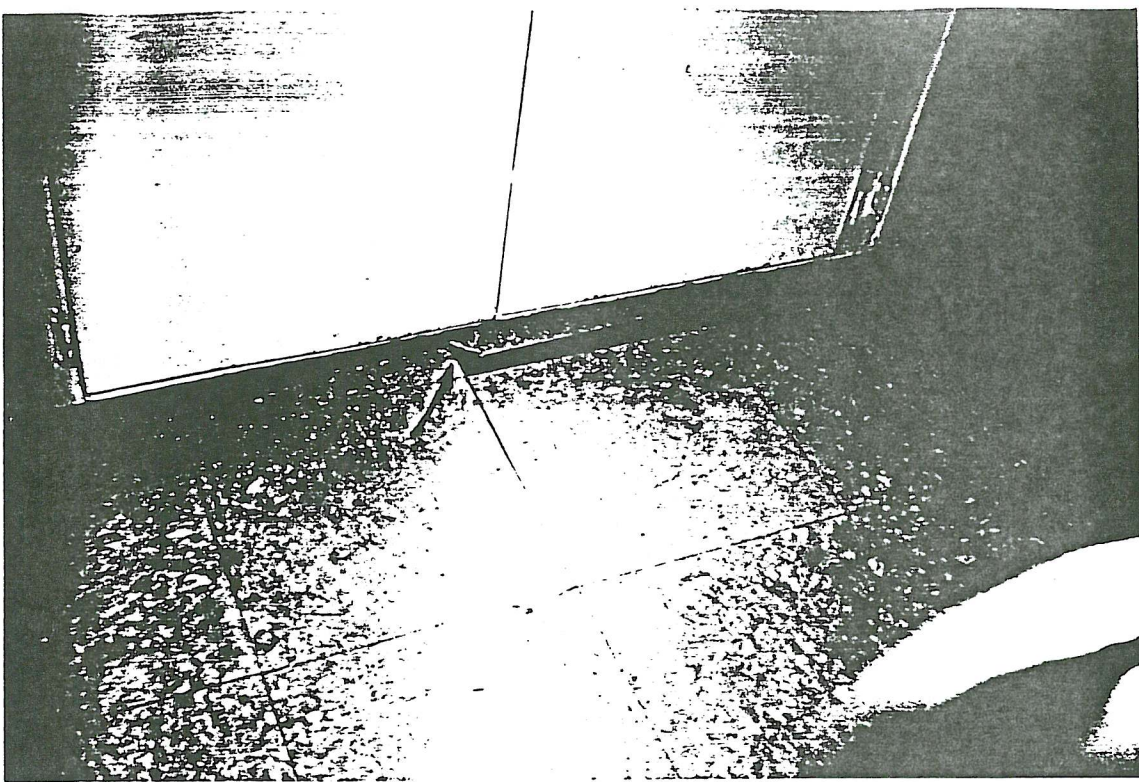


EXHAUST STACK ON ROOF



ROOFING MATERIAL



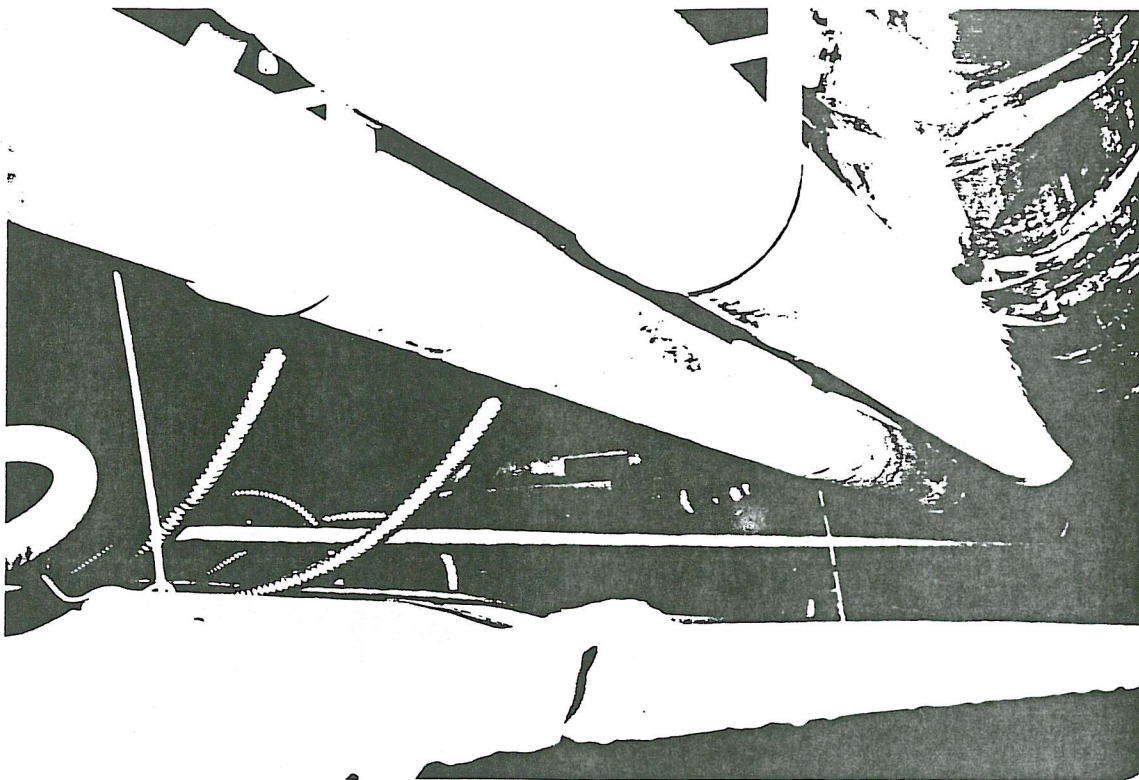


FLOOR TILE  
TYPICAL THROUGHOUT BUILDING  
(KITCHEN)

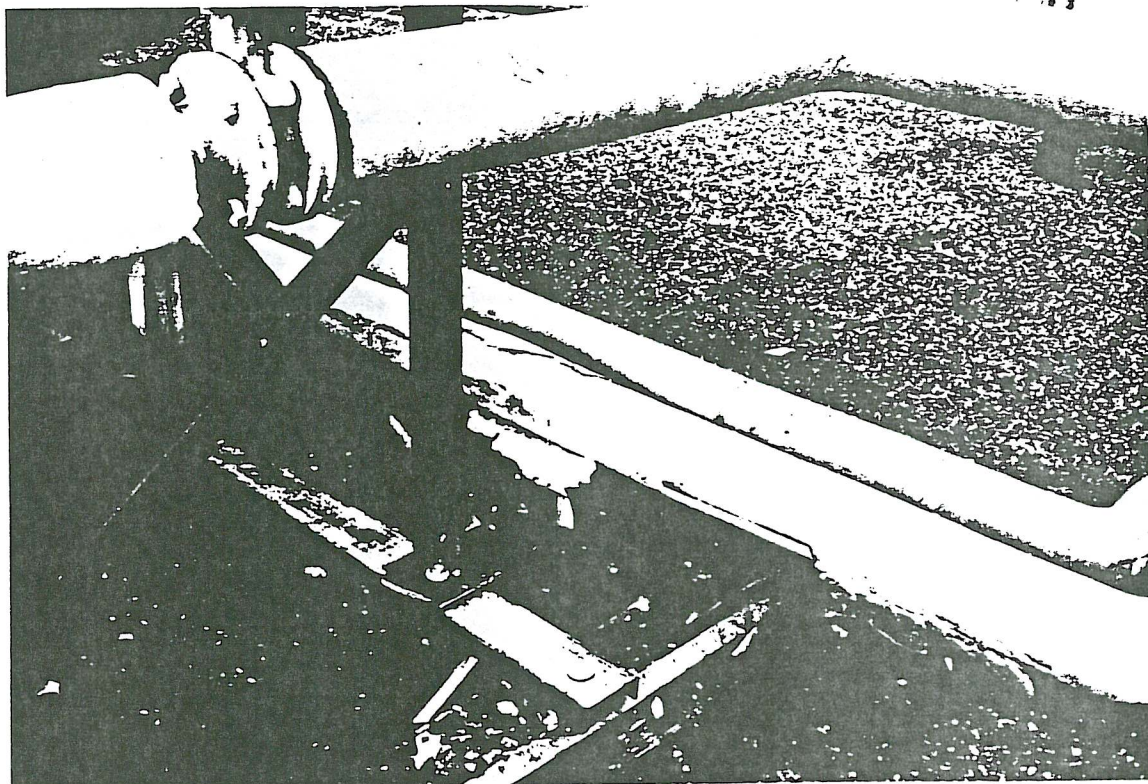


FITTING INSULATION ABOVE INSPECTION  
DOOR IN DISPATCH AREA

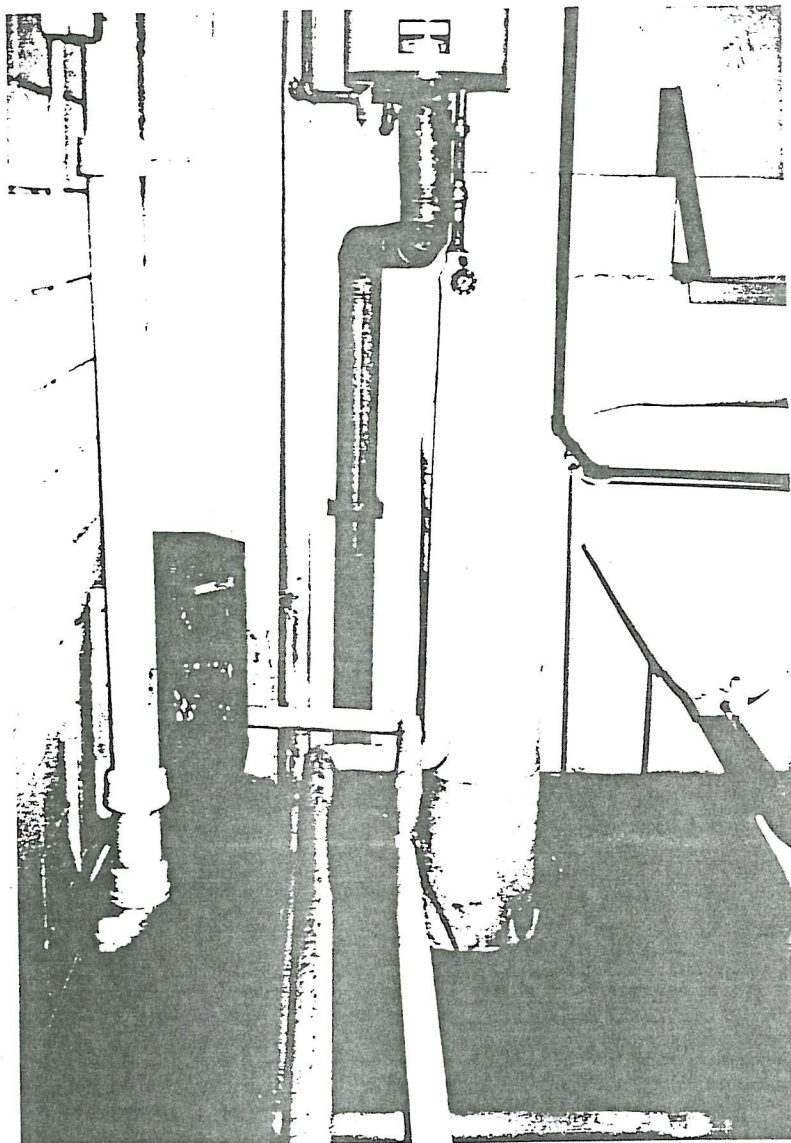




PIPING & INSULATION ABOVE  
COMPUTER ROOM #3

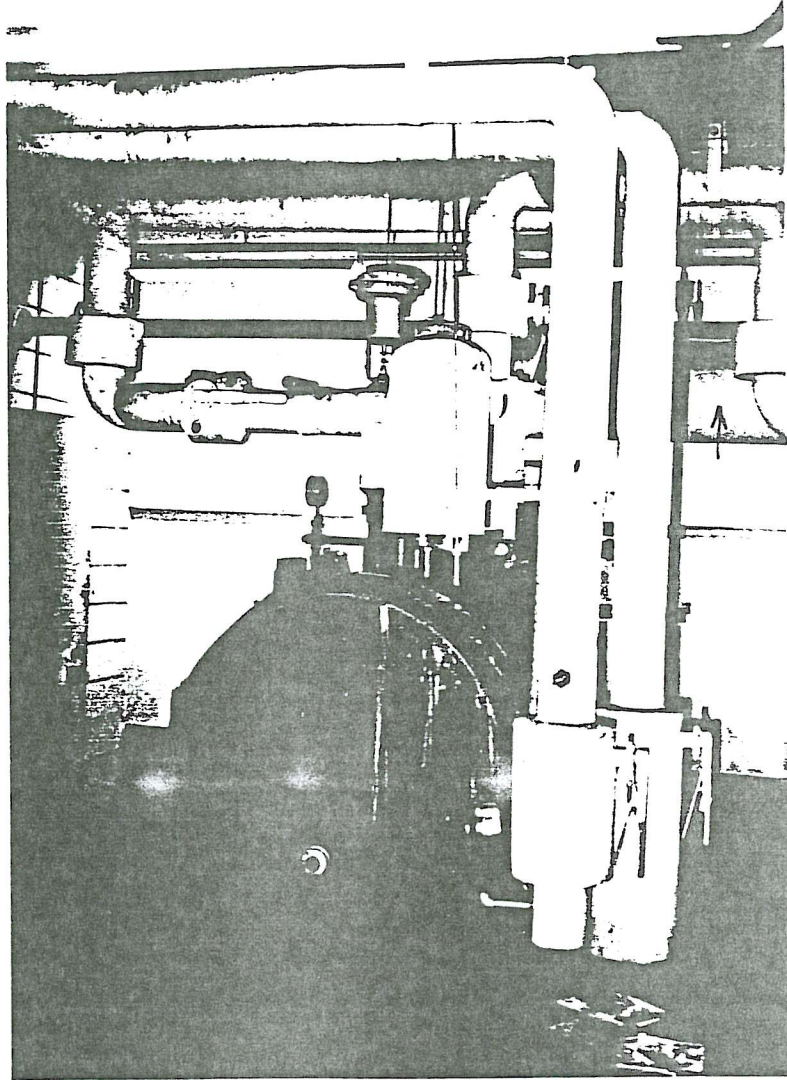


HOT WATER LINES  
ON ROOF

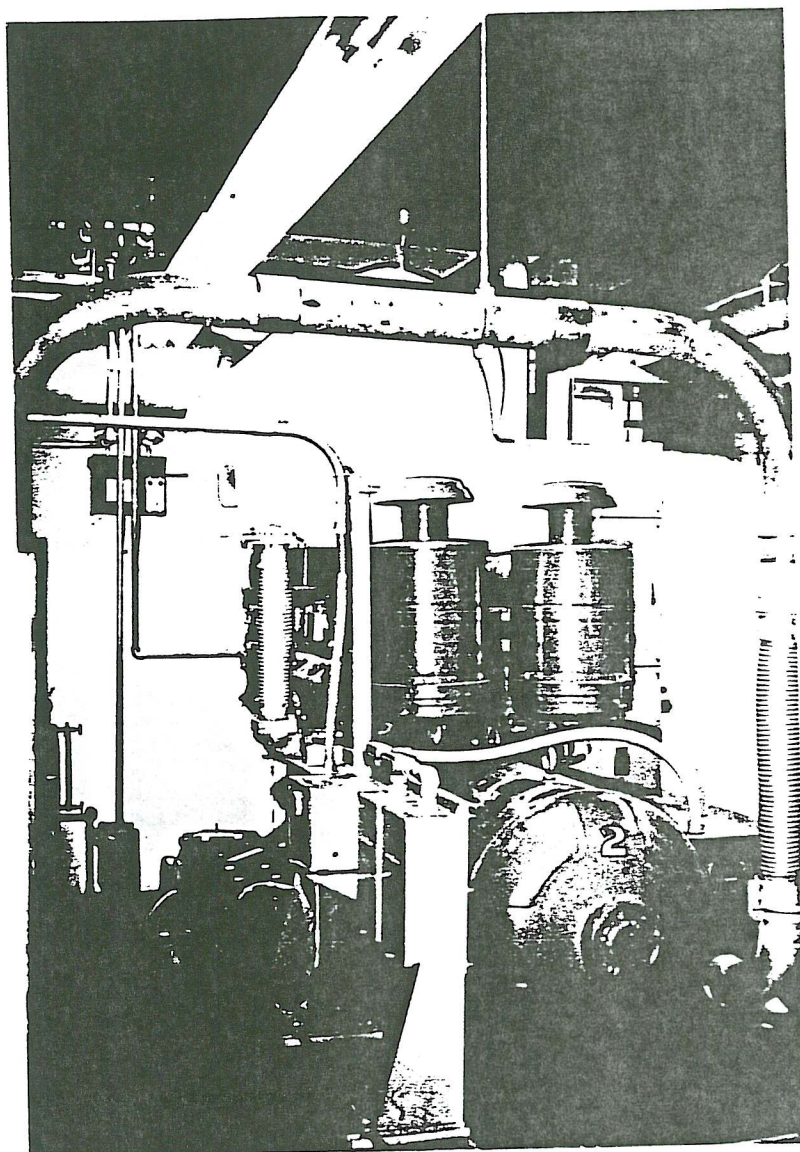


HOT WATER & BOILER EXHAUST STACK

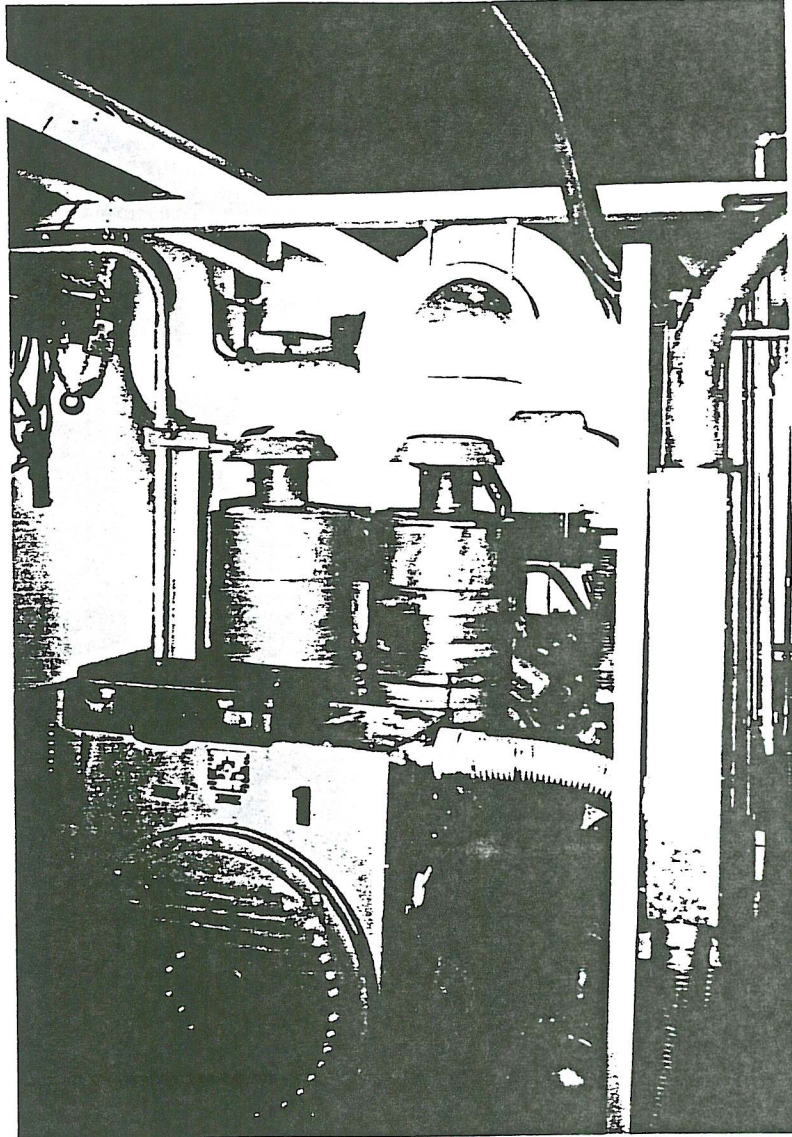




BOILER #2 EXHAUST STACK

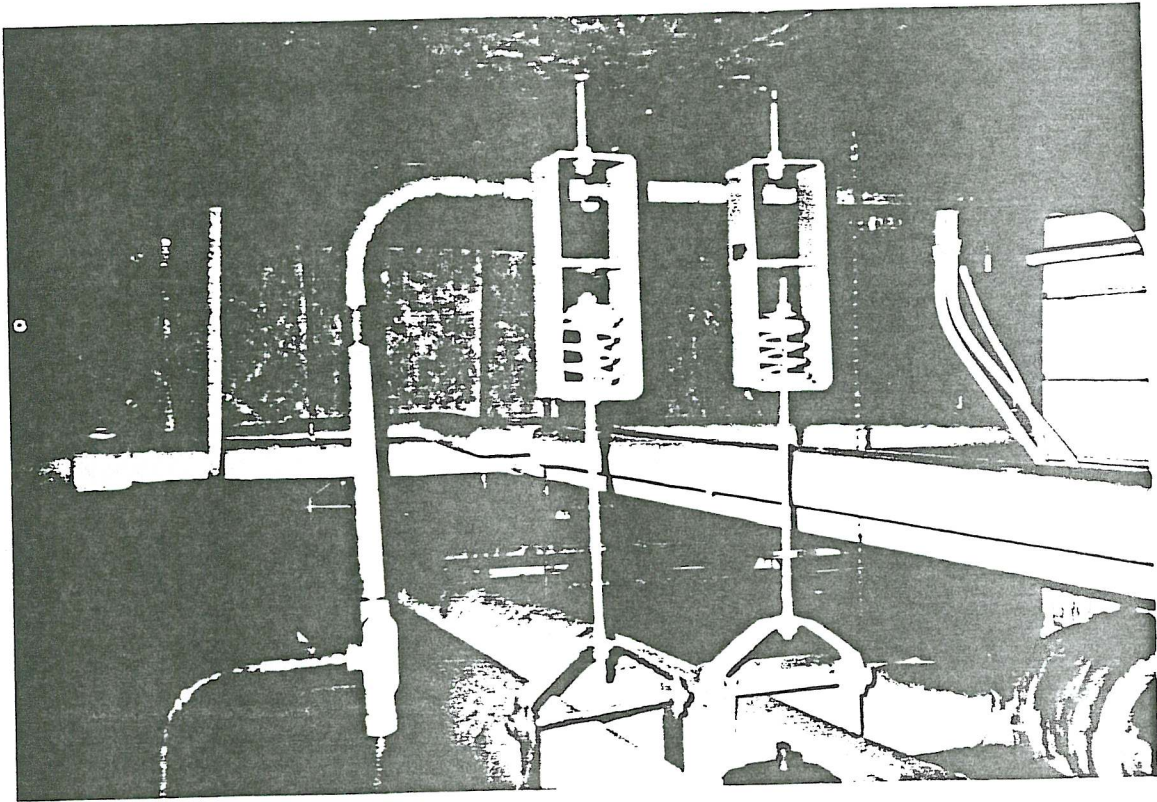


GENERATOR #2 EXHAUST LINES



GENERATOR EXHAUST - GENERATOR ROOM  
GENERATOR #1





PIPE & FITTING INSULATION MECHANICAL ROOM

## 4. LEAD-BASED PAINT SURVEY

Environmental Consulting Services, Inc. (ECS) performed a comprehensive Lead-Based Paint Survey at the Fire Alarm Building located at 333 Preston, in Houston, Texas, under professional services City Of Houston Contract No.: 53564. Ms. Lina Jazi, an EPA/TDH-certified Lead Risk Assessor with ECS, performed the facility inspection on September 13, 2005. The purpose of this assessment was to determine if Lead-Based Paint (LBP) was present at the facility.

### 4.1. Scope of Services

ECS was contracted by the City of Houston to perform the following scope of services:

1. Collect paint samples at the facility;
2. Submit the paint samples to a laboratory for the analysis of lead content; and,
3. Prepare a report presenting the analytical results, including recommendations for abatement of any lead-based painted materials discovered.

### 4.2. Sampling and Analysis

#### 4.2.1. Paint Samples Collection

Nine (9) homogenous areas were identified. A total of nine (9) material samples of suspect Lead-Based-Paint (LBP) materials were collected and analyzed. The paint chips were placed in small plastic bags, labeled and shipped to EMC Labs, Inc. for analysis. Description and location of the samples are included in Table 2. HUD sampling procedures and guidelines for evaluation and control of lead-based paint in housing were followed for this survey.

Lead containing paint hazard categories as defined by the City of Houston are presented in Table 1 as follows:

| <b>Table 1: HAZARD CATEGORY AND RESPONSE ACTION</b> |  |
|---|--|
| <b>Hazard Category</b>                              | <b>Response Action</b>   |
| <b>C-1: Lead Present</b>                            | Health Hazard, as defined by applicable federal, state and city regulations. Abatement should be a top priority. (> 5,000 ppm or 0.5% by weight)   |
| <b>C-2: Lead Present</b>                            | No action necessary when the material is adequately enclosed, must be addressed prior to demolition or renovation. OSHA regulations apply to workers or the public. (> 600 ppm or 0.06% but < 5,000 ppm or 0.5% by weight) |
| <b>A: Allowable Lead Level</b>                      | < 600 ppm or 0.06% by weight   |
| <b>A-1: Lead Abated</b>                             | Once identified; lead containing materials (LCM) have been abated  |



#### **4.2.2. Laboratory Analytical Results**

EMC Labs, Inc. is accredited by the American Industrial Hygiene Association for environmental lead analysis, and is recognized by the Environmental Protection Agency (EPA) under the National Lead Laboratory Accreditation Program. Flame AA method (SW-846, 3050A/7420) was utilized to detect the lead content in the paint materials sampled. Lead-based paint is defined as a paint chip with a lead content of 0.5% by weight or greater in a dry film of paint applied.

A total of ten (10) material samples were collected and submitted to the lab for analysis. Analytical results indicated the following:

1. Analytical results of the red paint located on the floor of Room 105 indicated lead concentrations of 0.022% by weight. These materials appeared to be in damaged condition at the time of our facility visit. Approximately sixty four (64) square feet of this paint exist. Allowable lead levels (City of Houston Hazard Category A).
2. Analytical results of the white / red door frame paint located on the interior door frame in the hall outside east stairwell indicated lead concentrations of 0.136% by weight. These materials appeared to be in good condition at the time of our facility visit. Approximately seven hundred (700) square feet of this paint exist on metal doorways throughout the building. Abatement of this material should be addressed prior to any renovation/demolition activities. OSHA regulations apply to workers or the public (City of Houston Hazard Category C-2).
3. Analytical results of the white paint located on the first floor interior wall paint indicated lead concentrations of below reportable limits. These materials appeared to be in good condition at the time of our facility visit. Approximately six thousand five hundred (6,500) square feet of this paint exist. Allowable lead levels (City of Houston Hazard Category A).
4. **Analytical results of the gray paint located on the floor of the mechanical room located on the first floor indicated lead concentrations of 3.491% by weight. These materials appeared to be in damaged condition at the time of our facility visit. Approximately one thousand one hundred (1,100) square feet of this paint exist in the mechanical room areas. Health hazard, as defined by applicable federal, state, and local regulations. Abatement should be a top priority. (City of Houston Category C-1).**

5. Analytical results of the green paint on the HVAC unit, duct work, and various pieces of equipment in the mechanical rooms located on the first floor indicated lead concentrations of 0.108% by weight. These materials appeared to be in good condition at the time of our facility visit. Approximately three thousand six hundred (3,600) square feet of this paint exist. Abatement of this material should be addressed prior to any renovation/demolition activities. OSHA regulations apply to workers or the public (City of Houston Hazard Category C-2).
6. Analytical results of the yellow paint on piping located north mechanical room indicated lead concentrations of 0.013% by weight. These materials appeared to be in good condition at the time of our facility visit. Approximately six hundred (600) square feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).
7. Analytical results of the blue wall paint located on the first floor north wall hall indicated lead concentrations below reportable limits. These materials appeared to be in good condition at the time of our facility visit. Approximately sixty four (64) linear feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).
8. Analytical results of the medium gray located on the interior walls of the boiler room indicated lead concentrations below reportable limit. These materials appeared to be in good condition at the time of our facility visit. Approximately nine hundred sixty (960) square feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).
9. Analytical results of the yellow paint wall patch located on the north wall of room 209 indicated lead concentrations below reportable limit. These materials appeared to be in good condition at the time of our facility visit. Approximately eighty (80) square feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).
10. Blue and yellow paints on pipe insulation throughout the mechanical rooms are assumed to be lead containing. Approximately three hundred (300) linear feet of this material appeared to be in good condition at the time of our facility visit. Health hazard, as defined by applicable federal, state, and local regulations. Abatement should be a top priority. (City of Houston Category C-1).

A numbered label identified all samples. The numbers directly correspond with the numbers listed in the Chain-of-Custody and the Laboratory Test Results in Appendix B. Sample locations for all areas tested and analytically reviewed are presented in Appendix A. Photographs are presented in Appendix A. Analytical results are presented in Table 2 and Appendix B.

**TABLE 2: SUSPECT LBP ANALYTICAL RESULTS**

| <b>Sample No.</b> | <b>Location</b>   | <b>Color / Hazard</b> | <b>Lead Concentration (%)<br/>by Weight (BDL=Below<br/>Detectable Limits)</b> |
|-------------------|---|-----------------------|---|
| L130-001          | Floor of Room 105   | Red Floor Paint / A   | 0.022   |
| L130-002          | Interior Door Frame in Hall Outside<br>East Stairwell               | White / Red / C-2     | 0.136   |
| L130-003          | 1 <sup>st</sup> Floor Interior Wall Paint                           | White / A             | BDL   |
| L130-004          | 1 <sup>st</sup> Floor Mechanical Room Area<br>Floor                 | Gray / C-1            | 3.491   |
| L130-005          | HVAC Unit Paint / Various Pieces<br>of Equipment in Mechanical Room | Green / C-2           | 0.108   |
| L130-006          | North Piping North Mechanical<br>Room                               | Yellow / A            | 0.013   |
| L130-007          | North Piping Wall Paint / North<br>Wall Hall 1 <sup>st</sup> Floor  | Blue / A              | BDL   |
| L130-008          | Interior Walls of Boiler Room                                       | Medium Gray / A       | BDL   |
| L130-009          | Wall Patch North Wall Room 209                                      | Yellow / A            | BDL   |

### 4.3. Findings and Recommendations

ECS has completed a Lead-Based Paint Survey at the Fire Alarm Building, located at 333 Preston, in Houston, Texas. This assessment was performed to determine the presence and location of lead-based paint.

#### 4.3.1. Findings

Ten (10) homogenous areas were identified. A total of nine (9) material samples of suspect Lead-Based-Paint (LBP) materials were collected and analyzed. Analytical results indicated the following:

1. Analytical results of the red paint located on the floor of Room 105 indicated lead concentrations of 0.022% by weight. These materials appeared to be in damaged condition at the time of our facility visit. Approximately sixty four (64) square feet of this paint exist. Allowable lead levels (City of Houston Hazard Category A).
11. Analytical results of the white / red door frame paint located on the interior door frame in the hall outside east stairwell indicated lead concentrations of 0.136% by weight. These materials appeared to be in good condition at the time of our facility visit. Approximately seven hundred (700) square feet of this paint exist on metal doorways

---

throughout the building. Abatement of this material should be addressed prior to any renovation/demolition activities. OSHA regulations apply to workers or the public (City of Houston Hazard Category C-2).

2. Analytical results of the white paint located on the first floor interior wall paint indicated lead concentrations of below reportable limits. These materials appeared to be in good condition at the time of our facility visit. Approximately six thousand five hundred (6,500) square feet of this paint exist. Allowable lead levels (City of Houston Hazard Category A).
3. **Analytical results of the gray paint located on the floor of the mechanical room located on the first floor indicated lead concentrations of 3.491% by weight. These materials appeared to be in damaged condition at the time of our facility visit. Approximately one thousand one hundred (1,100) square feet of this paint exist in the mechanical room areas. Health hazard, as defined by applicable federal, state, and local regulations. Abatement should be a top priority. (City of Houston Category C-1).**
4. Analytical results of the green paint on the HVAC unit, duct work, and various pieces of equipment in the mechanical rooms located on the first floor indicated lead concentrations of 0.108% by weight. These materials appeared to be in good condition at the time of our facility visit. Approximately three thousand six hundred (3,600) square feet of this paint exist. Abatement of this material should be addressed prior to any renovation/demolition activities. OSHA regulations apply to workers or the public (City of Houston Hazard Category C-2).
5. Analytical results of the yellow paint on piping located north mechanical room indicated lead concentrations of 0.013% by weight. These materials appeared to be in good condition at the time of our facility visit. Approximately six hundred (600) square feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).
6. Analytical results of the blue wall paint located on the first floor north wall hall indicated lead concentrations below reportable limits. These materials appeared to be in good condition at the time of our facility visit. Approximately sixty four (64) linear feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).
7. Analytical results of the medium gray located on the interior walls of the boiler room indicated lead concentrations below reportable limit. These materials appeared to be in good condition at the time of our facility visit. Approximately nine hundred sixty (960)

square feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).

8. Analytical results of the yellow paint wall patch located on the north wall of room 209 indicated lead concentrations below reportable limit. These materials appeared to be in good condition at the time of our facility visit. Approximately eighty (80) square feet of this paint exist. No abatement deemed necessary (City of Houston Hazard Category A).
9. Blue and yellow paints on pipe insulation throughout the mechanical rooms are assumed to be lead containing. Approximately three hundred (300) linear feet of this material appeared to be in good condition at the time of our facility visit. Health hazard, as defined by applicable federal, state, and local regulations. Abatement should be a top priority. (City of Houston Category C-1).

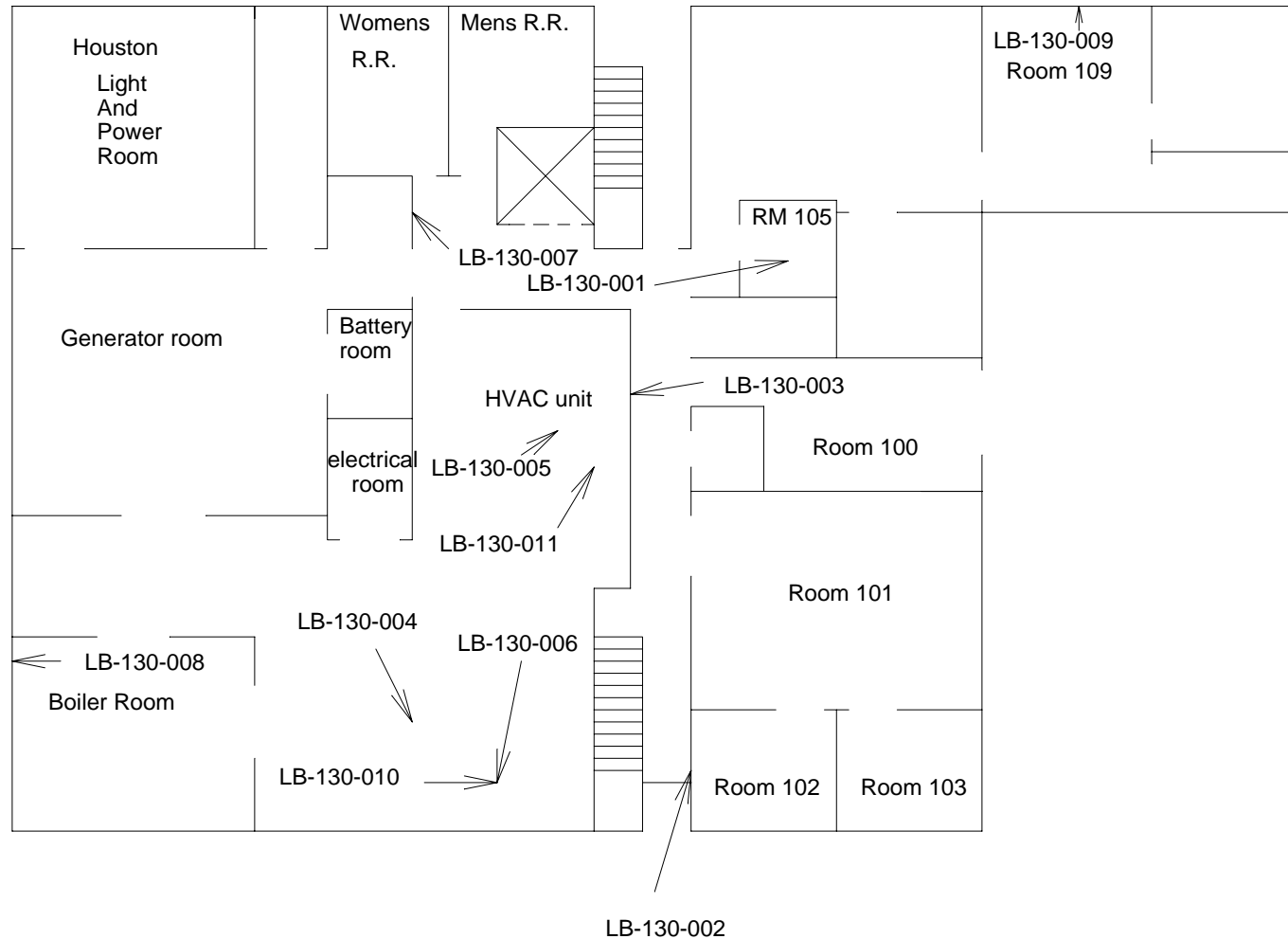
#### **4.3.2. Recommendations**

1. Prior to disturbance, all paints indicating lead concentrations below 0.06% by weight should be addressed for worker protection following the applicable OSHA regulations (i.e. 29 CFR 1926.62).
2. Any painted areas that are homogenous with the above sampled areas identified as being lead containing, should also be considered as lead containing, and should be maintained or removed by qualified personnel.
3. Paint materials indicating lead concentrations of greater than 0.5% by weight pose a health hazard, as defined by applicable federal, state and city regulations. Abatement should be a top priority. (City of Houston Hazard Category C-1).
4. Paint materials indicating lead concentration of greater than 0.06% but less than 0.5% by weight can be managed in-place. No action necessary when the material is adequately enclosed, must be addressed prior to demolition or renovation. OSHA regulations apply to workers or the public. (City of Houston Hazard Category C-2).
5. In the event that any work procedure (i.e. renovations, demolitions, or abatement) are to be conducted, workers should abide by the federal OSHA regulations (i.e. 29 CFR 1926.62). Work should be conducted in accordance with the U.S. Department of Housing and Urban Development (HUD), *Lead-Based Paint Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing*. All abatement should be done in accordance with all applicable building and fire codes.

6. The appropriate abatement methods are 1) to replace the painted materials; 2) encapsulate with non-lead-based paint; or 3) paint removal. If re-coating is selected, surface preparation should be limited to liquid wipe and not sanding. If abatement does not break or disturb lead-based painted surfaces, containment measures should be used only as needed to protect surfaces and furniture from damage.
7. The lead-based paint materials should be disposed of in accordance with State and Federal Regulations. The Texas Commission On Environmental Quality (TCEQ) requires profiling the waste and applying with the State for a waste code number. To profile the waste, a sample of the waste is submitted to a laboratory and tested for reactivity, corrosivity, ignitability, and toxicity. Toxicity is determined by performing a TCLP lead analysis. The analytical results along with a TCEQ-0757 form is submitted to the TCEQ to receive a one-time shipment waste code. Upon issuance of a waste code from the TCEQ, the analytical results and the waste code can be submitted to a disposal facility for acceptance. Lead based paint materials are not considered hazardous waste for disposal if the concentration is less than 5 mg/L by TCLP analysis.

**APPENDIX A**  
**FIGURES AND PHOTOGRAPHS**

# FIRST FLOOR



N ←

PROJECT NAME: Fire Alarm Building  
PROJECT ADDRESS: 333 Preston  
HOUSTON, TEXAS  
NOT TO SCALE

ENVIRONMENTAL CONSULTING SERVICES, INC.  
5718 WESTHEIMER ROAD  
SUITE # 1575  
HOUSTON, TEXAS 77057

ASBESTOS LOCATION DIAGRAM  
DATE : 9/12/05  
PROJECT NO.: 50825130

Jennifer L. Boone 10-5554 Exp. 06-28-2005



**NO LEAD PHOTOS AVAILABLE**

**APPENDIX B  
ANALYTICAL RESULTS  
AND  
CHAIN-OF-CUSTODY**



9830 South 51<sup>st</sup> Street, Suite B-109 / PHOENIX, ARIZONA 85044 / 480-940-5294 or 800-362-3373 / FAX 480-893-1726  
emclab@emclabs.com

**LEAD (Pb) IN PAINT CHIP SAMPLES**  
**EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420**

|  |  |                                   |  |
|--|--|-----------------------------------|--|
| <b>EMC LAB #:</b> L29214   |  | <b>DATE RECEIVED:</b> 09/14/05    |  |
| <b>CLIENT:</b> Environmental Consulting Services                           |  | <b>REPORT DATE:</b> 09/16/05      |  |
|  |  | <b>DATE OF ANALYSIS:</b> 09/15/05 |  |
| <b>CLIENT ADDRESS:</b> 5718 Westheimer Road Ste. 1575<br>Houston, TX 77056 |  | <b>P.O. NO.:</b>                  |  |
| <b>PROJECT NAME:</b> HFD 333 Preston                                       |  | <b>PROJECT NO.:</b> 50825130      |  |

| EMC #<br>L29214- | SAMPLE<br>DATE /05 | CLIENT<br>SAMPLE # | DESCRIPTION  | REPORTING<br>LIMIT<br>(%Pb by weight) | %Pb BY<br>WEIGHT |
|------------------|--------------------|--------------------|--|---------------------------------------|------------------|
| 1                | 09/09              | LB-130-001         | Red Floor Paint/Floor of Rm. #105  | 0.010                                 | 0.022            |
| 2                | 09/09              | LB-130-002         | Door Frame Paint (White-Red) Int. Door Frame In Hall<br>Outside E. Stairwell             | 0.010                                 | 0.136            |
| 3                | 09/09              | LB-130-003         | Interior Wall Paint (White) 1 <sup>st</sup> Floor Int. Wall Paint                        | 0.010                                 | BRL              |
| 4                | 09/09              | LB-130-004         | Floor Paint (Gray) 1 <sup>st</sup> Floor, Mech. Rm. Area Floor                           | 0.010                                 | 3.491            |
| 5                | 09/09              | LB-130-005         | HVAC Unit Paint (Green) 1 <sup>st</sup> Floor on HVAC Unit<br>Various Equip. in Mech. Rm | 0.010                                 | 0.108            |

^ = Dilution Factor Changed

\* = Excessive Substrate May Bias Sample Results

BRL = Below Reportable Limits

This report applies to the standards or procedures identified and to the samples tested only. The test results are not necessarily indicative or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. Unless otherwise noted, all quality control analyses for the samples noted above were within acceptable limits. Blank correction is performed if the result for the blank is higher than the reporting limit.

Where it is noted that a sample with excessive substrate was submitted for laboratory analysis, such analysis may be biased. The lead content of such sample may, in actuality, be greater than reported. EMC makes no warranty, express or implied, as to the accuracy of the analysis of samples noted to have been submitted with excessive substrate. Resampling is recommended in such situations to verify original laboratory results.

These reports are for the exclusive use of the addressed client and are rendered upon the condition that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. Samples not destroyed in testing are retained a maximum of sixty (60) days.

**ANALYST:**

Jason Thompson

**QA COORDINATOR:**

Kurt Kettler



9830 South 51<sup>st</sup> Street, Suite B-109 / PHOENIX, ARIZONA 85044 / 480-940-5294 or 800-362-3373 / FAX 480-893-1726  
emclab@emclabs.com

**LEAD (Pb) IN PAINT CHIP SAMPLES**  
**EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420**

|  |  |                                   |  |
|--|--|-----------------------------------|--|
| <b>EMC LAB #:</b> L29214   |  | <b>DATE RECEIVED:</b> 09/14/05    |  |
| <b>CLIENT:</b> Environmental Consulting Services                           |  | <b>REPORT DATE:</b> 09/16/05      |  |
|  |  | <b>DATE OF ANALYSIS:</b> 09/15/05 |  |
| <b>CLIENT ADDRESS:</b> 5718 Westheimer Road Ste. 1575<br>Houston, TX 77056 |  | <b>P.O. NO.:</b>                  |  |
| <b>PROJECT NAME:</b> HFD 333 Preston                                       |  | <b>PROJECT NO.:</b> 50825130      |  |

| EMC #<br>L29214- | SAMPLE<br>DATE /05 | CLIENT<br>SAMPLE # | DESCRIPTION  | REPORTING<br>LIMIT<br>(%Pb by weight) | %Pb BY<br>WEIGHT |
|------------------|--------------------|--------------------|--|---------------------------------------|------------------|
| 6                | 09/09              | LB-130-006         | N. Piping N. Mech. Room  | 0.010                                 | 0.013            |
| 7                | 09/09              | LB-130-007         | N. Piping Wall Paint (Blue) N. Wall Hall 1 <sup>st</sup> Floor | 0.010                                 | BRL              |
| 8                | 09/09              | LB-130-008         | Int. Walls (Med. Gray) Int. Walls of Boiler Rm.                | 0.010                                 | BRL              |
| 9                | 09/09              | LB-130-009         | Wall Patch (Yellow Paint) N. Wall Rm. 209                      | 0.010                                 | BRL              |

^ = Dilution Factor Changed

\* = Excessive Substrate May Bias Sample Results

BRL = Below Reportable Limits

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**ANALYST:**

Jason Thompson

**QA COORDINATOR:**

Kurt Kettler

## CHAIN OF CUSTODY

EMC Laboratories  
 9830 S. 51<sup>ST</sup> St., Ste B-109  
 Phoenix, AZ 85044  
 (800) 362-3373 Fax (480) 893-1726

LAB#: L29214TAT: 2 day

Rec'd: SEP 14 AM.

COMPANY NAME: Environmental Consulting ServicesBILL TO: **E-MAILED** (If Different Location)5718 Westheimer Road #Ste 1575Houston, TX 77056CONTACT: Sam Barbar/SherryPhone/Fax: (713) 622-4800/ (713) 622-4828Email: info@ecsus.com jennifer.boone@ecsus.comNow Accepting: VISA - MASTERCARD

Price Quoted: \$ \_\_\_\_\_ / Sample \$ \_\_\_\_\_ /

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your sample)

1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]\*\*\*\*Prior confirmation of turnaround time is required

\*\*\*\*Additional charges for rush analysis (please call marketing department for pricing details)

\*\*\*\*Laboratory analysis may be subject to delay if credit terms are not met

2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab]3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense](If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)4. Project Name: HFD 333 Preston

P.O. Number: \_\_\_\_\_

Project Number: 50825130

| EMC<br>SAMPLE<br># | CLIENT<br>SAMPLE # | DATE & TIME<br>SAMPLED | LOCATION/MATERIAL<br>TYPE | Samples<br>Accepted<br>Yes / No | AIR SAMPLE INFO / COMMENT |     |   |
|--------------------|--------------------|------------------------|---------------------------|---------------------------------|---------------------------|-----|---|
|                    |                    |                        |                           |                                 | ON                        | OFF | F |
| <u>17</u>          | <u>LB-130-001</u>  | <u>9/9/05</u>          | <u>see attached data</u>  | <u>Y</u> <u>N</u>               |                           |     |   |
| <u>99</u>          | <u>4hr - 009</u>   |                        | <u>sheet</u>              | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |
|                    |                    |                        |                           | <u>Y</u> <u>N</u>               |                           |     |   |

## SPECIAL INSTRUCTIONS:

Sample Collector: (Print) Don Scraper(Signature) [Signature]Relinquished by: [Signature]Date/Time: 9-13-05 3:00 PMReceived by: Diana FedericoDate/Time: 9/14/05Relinquished by: Diana FedericoDate/Time: 9/14/05Received by: [Signature]Date/Time: 9/14Relinquished by: [Signature]Date/Time: 9/15/05 9:40Received by: [Signature]

Date/Time: \_\_\_\_\_

**APPENDIX C**  
**LICENSES AND CERTIFICATIONS**





# TEXAS DEPARTMENT OF STATE HEALTH SERVICES


*Be it known that*

## **ENVIRONMENTAL CONSULTING SERVICES INC (ECS)**

*is certified to perform as a*

### **Lead Firm**

*in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.*

  
Eduardo J. Sanchez, M.D., M.P.H.  
Commissioner of Health

License Number: 2110079

Expiration Date: 2/6/2008

Effective Date: 2/6/2006

*(Void After Expiration Date)*

VOID IF ALTERED

Control Number 5576

NON-TRANSFERABLE



# TEXAS DEPARTMENT OF HEALTH

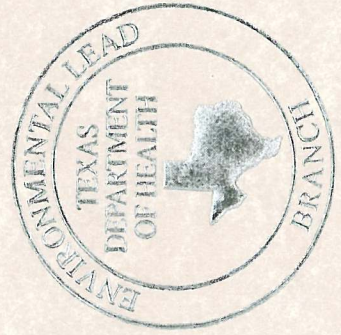
BE IT KNOWN THAT

**Lina A. Jazi**

is hereby granted Certification as a

## Lead Risk Assessor

in the State of Texas within the purview of Vernon's Texas Civil Statutes, Article 9029, as amended, so long as not suspended or revoked, and as long as renewed according to the rules adopted by the Texas Board of Health.



2070318

Certification Number

09/26/2004

Issue Date

09/26/2007

Expiration Date

Keith Alexander, Chief  
Environmental Lead Branch  
Toxic Substances Control Division

Eduardo J. Sanchez, M.D., M.P.H.  
Commissioner of Health

VOID IF ALTERED

NON-TRANSFERABLE



**APPENDIX D**  
**SURVEY CHECKLISTS**

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**CHECK LIST FOR LEAD SURVEYS**

NAME OF THE FACILITY: **Fire Alarm Building**

FACILITY ADDRESS: **333 Preston, Houston, Texas**

DATE OF THE SURVEY: **09/13/05** CONSULTANT: **ECS**

INSPECTOR(S) NAME: **Lina Jazi**

Note: Items/information listed below must be included in the report. Use this check list to ensure completeness of your report. Mark "X" or "check" in front of the information included in the report. Submit completed check list with the report. If a facility is surveyed for lead and asbestos, the survey reports shall be segregated in one binder or preferably two separate reports.

1.   X   Statement...if "HUD Guidelines for Evaluation and Control of Lead Based Paint in Housing" or any other criteria were followed for the survey.
2.   X   Date and Contract number of the survey.
3.   X   Scope of the work.
4.   X   Copy of the inspector (s) TDH Certificate.
5.   X   Name and Address of the building
6.   N/A   Statement...if building records were used in the inspection, and if not, Why?
7.   X   Cover letter (in report) containing executive summary or executive summary at the beginning of the report format.
8.   N/A   Date of construction and last renovation (if any) of the building.
9.   X   List of areas that were not inspected. Explain.
10.   X   Condition of the building structure such as deterioration, structural problems or other damages.
11.   X   List of components assumed to have lead based paint or coating, if any.
12.   X   City of Houston Lead Hazard Categorization (LHC) list and categorization of all the samples according to the LHC list included in the report.

If XRF Analyzer Used:

- 13. N/A Performance Characteristics Sheet (PCS) for the XRF equipment/s used.
- 14. N/A Calibration Check Test Results (Form 7.2, HUD Guidelines, or equivalent).
- 15. N/A Statement...if HUD Guidelines were followed for Calibration Check Test of the XRF equipment and replacement XRF equipment, if used.
- 16. N/A Installation date and type of source for XRF equipment and replacement equipment, if used.
- 17. N/A Drawings and photographs with XRF reading locations marked to facilitate future location of XRF readings.

If Samples Taken For Laboratory Analysis:

- 18. X Procedures and protocols used to collect paint chip samples.
- 19. X Copy of the chain of custody form for samples.
- 20. X Statement...if an accredited (NLLAP/ELLAP) laboratory was used for Sample Analysis.
- 21. X Copy of the laboratory accreditation certificate.
- 22. X Copy of the laboratory analysis results of the paint chip samples and other PbCMs.
- 23. X Statement (by the laboratory) regarding Quality Assurance and Quality Control performed.
- 24. X Drawings and photographs with sample locations marked to facilitate future location of coating materials sampled.

IF LEAD FOUND:

- 25. X Photographs of all component areas proven to have lead.
- 26. X Recommendations for all components proven to have lead based paint or coatings.
- 27. N/A Recommendations for Operation and Maintenance Materials.

28. X Estimated quantities of Lead Containing Materials.

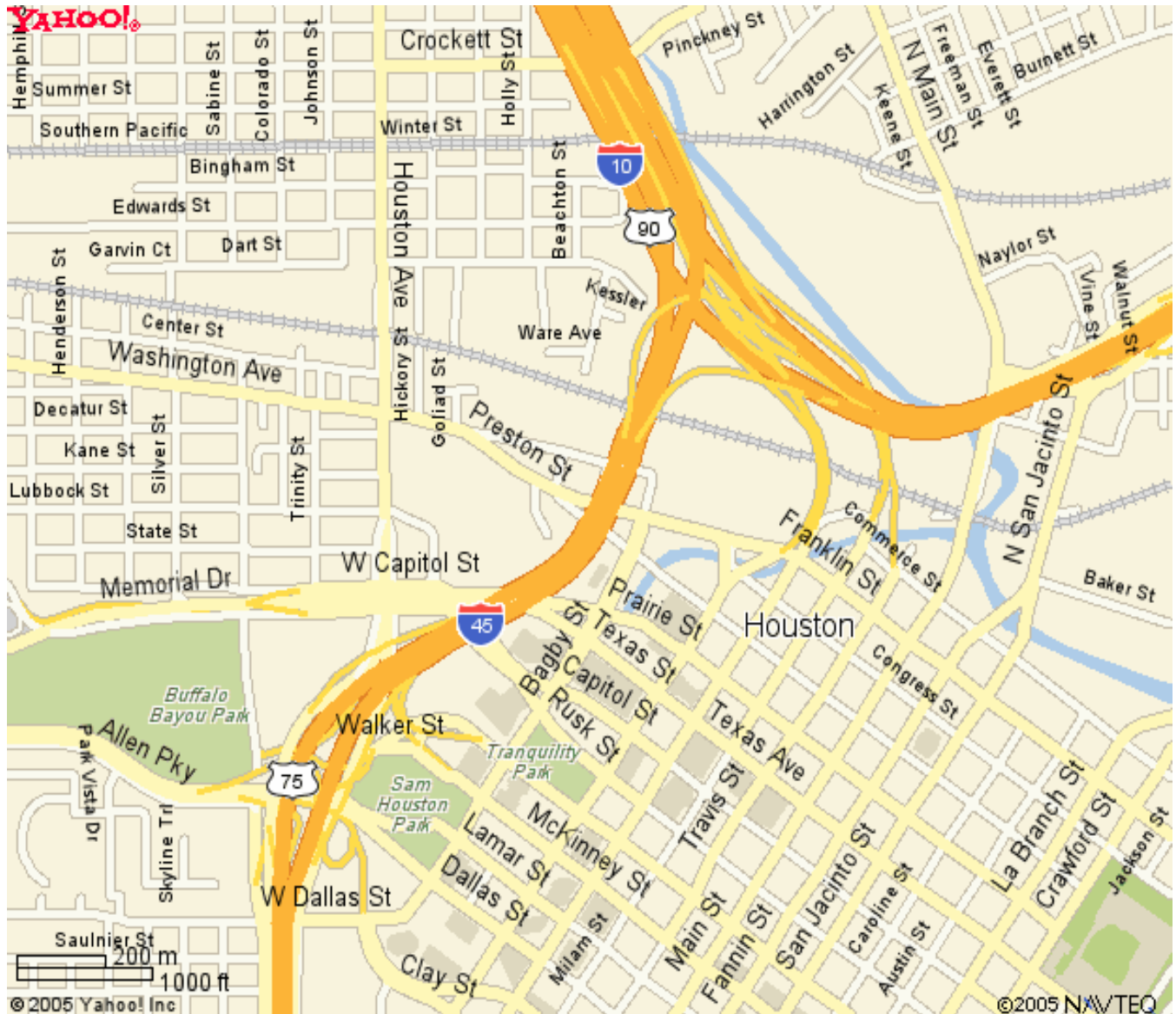
29. N/A Cost estimations for abatement.

Signed: \_\_\_\_\_

Name: **Lina Jazi**

Title: **Certified Lead Risk Assessor**

**APPENDIX E  
FACILITY LOCATION  
MAP**



**APPENDIX F**  
**LABORATORY STATEMENT REGARDING QUALITY ASSURANCE**  
**AND**  
**QUALITY CONTROL PERFORMED**

**EMC LABS, INC.**  
**ENVIRONMENTAL LEAD (Pb) LABORATORY**  
**QUALITY ASSURANCE MANUAL**

This Quality Assurance Manual describes the general QA/QC philosophy and procedures used by EMC Labs, Inc. (EMC) in our Environmental Lead (Pb) Laboratory. Given the variety and methods of analyses performed, all specific QA/QC requirements are not described herein but can be found in the EMC Labs, Inc. Standard Operating Procedures Manual.

This document and all information contained within this manual is the property of EMC Labs, Inc. It may not be used in any way other than its original intent without prior consent from the Quality Control Coordinator of Environmental Management Consultants, Inc. This Quality Assurance Manual meets the Quality Assurance/Quality Control requirements of the approved methods used by EMC Labs, Inc.

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Kurt A. Kettler - Laboratory Director,  
Quality Assurance Coordinator, Approved Signatory

EMC Labs, Inc.  
9830 S. 51<sup>st</sup> St., Suite B-109  
Phoenix, AZ 85044  
480-940-5294

---

1-15-05  
Date of this Version

Revision # 1.15.05pb

**Revisions**

This Quality Assurance Manual may be revised, pending any adoptions or revisions made to Digestion or Analysis Methods used by the laboratory and/or mandated by regulatory agencies. Before implementation of adoptions or revisions, the Laboratory Director and/or the Technical Manager must approve, sign, and date the revised Manual.



# **QUALITY ASSURANCE MANUAL FOR THE ENVIRONMENTAL LEAD LABORATORY**

## **1.0      Introduction**

EMC Labs Inc. offers environmental lead (Pb) testing to various industries. We are committed to quality analyses mandated by legal requirements using current EPA NIOSH, and HUD approved methods that incorporate state of the art technology. Sample matrices to be analyzed using Flame Atomic Absorption for lead content include soil, dust wipes, paint chips, and air samples. We are accredited by the American Industrial Hygiene Association for Environmental Lead Analysis through their Environmental Lead Laboratory Accreditation Program – Lab #101586.

## **1.1      Organization and Responsibility**

The Director of EMC is responsible for the efficient operation of the laboratory. The responsibilities include, but are not limited to: quality assurance, quality control, employee training, maintain supply inventories, and overall sample processing. The laboratory manager is responsible for sample analyses, ensuring conformance to project specific requirements, supervision of day-to-day operations in the lab, and implementing the high standards of quality set forth in this manual.

## **1.2      Health and Safety**

Along with assuring accurate results, the health and safety of employees is a primary concern of EMC. In accordance with OSHA Laboratory Standards (29 CFR, Part 1910, Section 191.1450), all employees are provided with information and training to ensure that they are aware of the hazards of the chemicals present in their work area. MSDS's are available to employees and are clearly marked. Food or beverages are not permitted into or consumed in the laboratories.

### 1.3 Quality Assurance Objectives

The primary objective of EMC Labs, Inc. Quality Assurance Manual is to ensure that all of the analyses performed meet the following criteria:

- A. Methods and procedures conform to the specifications and requirements of the client and the appropriate regulatory agencies.
- B. All measurements of precision and accuracy shall be determined and upon request, reported and recorded.
- C. All data is to be cross referenced with the quality control data. If necessary, corrective actions will be implemented when the analytical data fails to meet the established quality control criteria.
- D. Ongoing revision of operating procedures to ensure that quality data is obtained.
- E. All final reports are reviewed to meet the client's quality, completeness and cost objectives.
- F. This QA Manual is updated and approved by the Quality Assurance Coordinator or Technical Manager at least annually.
- G. This QA Manual is available at all times to laboratory personnel.
- H. The laboratory shall use test methods that are appropriate and that meet the needs of the client. The laboratory shall inform the client of the method selected whenever the client does not specify the method to be used or has proposed a method that is not appropriate or out of date.
- I. Records of communication and oral discussion with the client are maintained.

### **SAMPLE CUSTODY**

Information is available to clients regarding sampling materials, preservatives, sampling containers, and shipping instruction upon request.

## 2.0

### Sample Receipt

Upon sample receipt, the sample coordinator inspects the shipment for broken or damaged containers any discrepancies between the labels and the chain of custody forms. Any deficiencies or problems that are detected are immediately brought to the attention of the client and are documented on the chain of custody form. The Technical manager is then notified. If a sample is damaged, the lot may be rejected depending on the severity of the contamination. If there is a slight chance of contamination of other samples, all samples are rejected. Once the samples have been inspected, they are logged into the system. The sample coordinator assigns the sample a unique, specific identifying number in the log book. Information recorded in the log book includes; date, clients' name and project reference, number of samples, lab number, and type of sample matrix. The sample coordinator initials the entry in the log book and delivers the samples to the lab. Upon receipt of large amounts of samples, turnaround times are verified by the laboratory director/technical manager and the analyst(s) involved. The chain of custody is signed by each person who handles the samples (i.e. the sample receiver/coordinator and analyst). At all times the lab maintains a data review process. Each person who assumes custody of samples reviews the information entered by laboratory personnel and the information supplied by the client to check for mismatched or incorrect information, and signs the chain of custody as "Received by:", and when samples are relinquished to another department, the "Relinquished by:" section is signed. This process begins upon receipt of the samples and extends through the analytical process.

## 2.1

### Sample Retention

Samples are stored in the lead analysis laboratory. Samples are retained by Environmental Management Consultants, Inc. a maximum of sixty days. Upon completion of analyses, the samples are either returned to the client or disposed of.

## 2.2

### Sample Disposal

Samples are disposed of in accordance with Federal, State, and Local Regulations using a licensed Hazardous Waste Hauling/Disposal Service.

## **INTERNAL QUALITY CONTROL REQUIREMENTS and DEFINITIONS**

### Reagents and Standards

- 3.0        Calibration Blank: A solution of the same composition as the calibration standard but with no analyte present. A calibration blank is used to "zero" the instrument and, determine the lowest point of the calibration curve.
- 3.1        Calibration Standard: A NIST Traceable aliquot of known concentration either from a reputable source or prepared by the analyst to generate a calibration standard curve.
- 3.2        Internal Reference Standard: A NIST Traceable Standard of known concentration either from a reputable source or prepared by the analyst to monitor and verify instrument performance. This standard is prepared independently of the calibration standards and is analyzed immediately following instrument calibration and at various intervals in order to validate the standard curve.
- 3.3        Duplicate Sample: Two sample aliquots are prepared in the laboratory and analyzed as separate samples using the same method.
- 3.4        Method Blank: An aliquot of deionized water or other appropriate solution that is treated in exactly the same manner as the samples including exposure to all glassware, equipment, solvents, reagents and internal standards that are used in the analysis of samples.
- 3.5        Reagent: Any substance used to dissolve, extract react or dilute any sample or any component associated with the sample analysis. Strict control of reagents is maintained to ensure that contamination and degradation does not occur.

3.6 Certified Reference Material: A material containing a known value or concentration of the element for which the analysis is conducted. This sample must be purchased from NIST, or be traceable to a NIST Standard.

3.7 QC Intervals: The following is an example of the minimum QC Sample frequencies for:

- A. **Calibration Blank (ICB)**; one per analysis run
- B. **Calibration Standard**; 3 to 5 aliquots of a known
- C. **Duplicate Sample**; 5 % or 1 per batch.
- D. **Method Blank (CCB)**; 5 % or 1 per batch.
- E. **Initial Calibration Verification (ICV) Standard**; 1 per
- F. **Standard Reference Material (LCS)**; 5% or 1 per batch.
- G. **Matrix Spike Samples**; 5% or 1 per batch.
- H. **Continuing Calibration Verification (CCV)**; 1 per 10 samples, as well as before and at the end of a sample run. At the end of each sample run, an aliquot equal to 75% of the highest standard is analyzed.
- I. **Reporting Limit Verification (RLV)**; 1 per sample run

3.7.a. QC Acceptance Limits are statistically determined with respect to each required method. The minimum acceptance limits are to be no less than those required by the AIHA ELLAP Program. All Laboratory Control Samples are generated from NIST Traceable Standards.

3.8 ELPAT Program: The laboratory must participate in all ELPAT rounds.

The laboratory participates in the AIHA Environmental Lead Proficiency Analytical Testing Program for Dust Wipes, Soil, Air, and Paint Chips.

The laboratory analyzes proficiency test samples in a manner similar to client samples.

3.9      Quality Assurance Audits:

Quality Assurance Audits of the lead laboratory are conducted annually by the Quality Assurance Coordinator. An evaluation of suppliers is performed by the Quality Assurance Coordinator to ensure that all supplies and reagents are obtained from reputable sources.

3.10     Quality Assurance Reports:

The quality assurance coordinator provides reports to laboratory management at least quarterly. These reports include quality assurance problems, corrective actions, and quality assurance audits.

3.11     Preventive Maintenance

The instruments used at EMC are maintained by qualified EMC personnel and manufacturer authorized service technicians.

EMC's analytical balances, FAAS, and fume hoods preventive maintenance program exceeds those suggested by the manufacturer. The spectrometer and other equipment receive maintenance checks every 90 days or as needed. Maintenance and calibration logs are kept for each item in order to maintain a record of possible problems, maintenance, and service.

## **6. QUALIFICATIONS AND LIMITATIONS**

Our professional services have been performed, our findings obtained and our recommendations prepared in accordance with customary principles and practices in the fields of environmental science and engineering. This warranty is in lieu of all other warranties either expressed or implied. This company is not responsible for the independent conclusions, opinions or recommendations made by others based on the field exploration and laboratory test data presented in this report.

The conclusions and recommendations describe only the conditions present at the time of our assessment, in areas that were observed. Opinions and recommendations presented herein apply to facility conditions existing at the time of our investigation and those reasonably foreseeable.

This report is prepared for the sole and exclusive use of the City of Houston, its contractors or agents. It is designed to aid the building owner, architect, construction manager, general contractor, and potential abatement contractor in locating Asbestos-Containing Materials (ACM) and Lead-Based Paint (LBP).

Reasonable efforts were made to obtain representative samples of building materials and have those materials analyzed for asbestos or lead content. Should suspect materials be discovered during building renovation/demolition that have not been addressed, samples of the materials should be collected and analyzed for asbestos or lead content prior to renovation and/or demolition.

Notification to the Texas Department of State Health Services (DSHS) must be given prior to any renovations or demolition activities.